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STUDIES IN THE DICTION OF LAYAMON'S BRUT

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I

POINTS OF DIFFERENCE BETWEEN THE EARLIER AND LATER TEXT

The remarkable poetical quality exhibited in the Brut of Layamon is perhaps hardly recognized at its true value even by students of our earlier literature. The rather excessive length of this work has probably deterred many from a careful and thorough perusal, and it is likely that the number of those who have read it right through is not large. The present writer believes that lovers of English poetry will be well repaid by such a study and he has attempted to display some of the chief beauties of the Brut in an article which appeared in the January 1930 number of the *Review of English Studies*.

The following article consists of a comparison between the vocabulary of the two existing manuscripts of the poem:—Caligula A. ix, written about 1200 (here referred to as C), and Otho C. xiii, written about fifty years later, and here referred to as O.

Anyone who reads a few pages of the Brut in Madden's (the only complete) edition, will notice various differences between the earlier and later texts as they are shown side by side.

The general character of the two texts is so far in agreement that it seems highly probable that they are either based upon the same original, or even that the later O was actually based on C as we now have it. We are not now concerned with those differences of spelling and accidence existing between C and O, which reveal differences of dialect, but purely with differences of vocabulary. It will not escape the reader who turns from the earlier to the later text, that the latter not infrequently uses different words from those used by the former in the corresponding passages.

The whole vocabulary of the poem is remarkably archaic, and preserves, with great fidelity, the poetical traditions of Anglo-Saxon in many respects. This is true of both texts. On the other hand, there are numerous instances where the scribe of the later manuscript has

substituted another word for that in what we may take to be his original, as represented by manuscript Caligula. There are cases where, during the half century which separates the two texts, a word has become less current, obsolete, or sometimes unintelligible. The later scribe has accordingly substituted a different word, either a different, less archaic English word, or, not infrequently, a word of French origin.

It is with these substitutions made by the scribe of manuscript Otho that the following pages deal. As a starting point there is taken the words in C, which are arranged alphabetically as head-words. The passages or the phrases in which the words occur in the poem are usually given in order to show each word in its context, and to add an interest which no mere list of words and references could possess. The references are to volume, page, and half-line in Madden's edition of 1847. It seemed more convenient for reference, to stick to Madden's numbering by half-lines, although the quotations themselves are arranged in whole lines.

The accompanying list contains, it is believed, all the French words which occur in O, not only those which are used as substitutes for English words in C, but also those which are used by C itself in the corresponding passage. A few French words are included which are found only in C.

The short list B of French words in O which follows A is practically an Index showing under which English words in the larger list the French words may be found.

A

WORDS AND PHRASES OCCURRING IN MANUSCRIPT CALIGULA WHICH ARE REPLACED BY OTHERS IN OTHO

ÆHTE 'possessions, wealth'. O substitutes a French word for this fairly common English word in *þe king ne rohte of æhte* 3. 154. 4; O *þe king of . . esur* (tresur) ne rohte. In 3. 232. 3, O substitutes *catel*. C elsewhere also has the last word in the form *cadel*, 1. 427. 16, and 2. 2. 20.

ÆLDER 'prince, chief,' OE *ealdor*, *aldor*. And at Cameford wes isomned *sixti þusend and ma þusend þer to*; Modred wes heore *ælder*. 3. 141. 4-7.

O has *in Modred his syde*. In 1. 132. 18 however, O has *folke he was eldere* where C has *hælden he was ældere*. See below under *hæled*. *leoden þu scalt beon alder*, 2. 270. 1; O *lowerd*; *gumene ælder*, 2. 83. 11, is missing from O.

ÆRD, EARD, OE *eard* 'native land, country, home'. The scribe of O seems not to have known the word, and throughout the poem substitutes *erþe*, OE *eorþe* 'earth', in spite of the sense and the rhyme. C. He nom al þa ferde of Brut-londes *ærde* 1. 416. 23-24; Heo makeden heore uerde and senden to þissen *ærde* 2. 3. 2-3; ful fel hit heo þuhte. þa broderen to þissen *ærde* brohten vnimete verde, 2. 252. 1-2; and Brutus ladde his ferde in Amorichen *earde* 1. 69. 23-24. In all these passages O has *erþe*, which makes nonsense, and is a thoroughly poor rhyme.

ÆRMLICH, OE *earmlīc* 'wretched, miserable': he andswerede wið *ærmliche* stefene, 2. 447. 18-19; O mid cwickere stemne; (and haldeð me) . . . mid *ærmliche* witen, 1. 45. 6; O in zoure bendhuse; in *armliche* benden 1. 26. 4; O in *stronge* bendes. The adverb OE *earmlīce*: *ærmliche* beprungen 1. 402. 18; O *narwe* bi-þronge.

ÆRMDE, ERMDE, OE *iermþu* 'wretchedness, misery': Eneas þe duc, mid *ermden* atwond, 1. 5. 6-7; passage missing from O; ich am mid *ærmðen* abroken, 1. 31. 14; O omits line; to *ærmðen*, 1. 361. 8; passage absent from O; further 2. 252. 11; missing in O; and *ærmðen* iwrohte þer 2. 514. 12; O and moch *harm* wrohte. *Harm* is also substituted by O in 2. 434. 6, and 3. 267. 3.

ÆX, OE *eax*, *æx*, 'axe'. O substitutes *gisarme*, 1. 98. 6. See also WI-EAX.

ALMES-MONN, OE *ælmesmonn* 'beggar': an *almesmonnes* wisen, 2. 400. 18; O in *pore men* guyse; *ælmesmonnes* occurs also 2. 401. 16, but the lines are absent from O.

ALÞEODEN, -ISC 'foreign', OE *elþeod* 'foreign nation', *elþeodisc* 'foreign': *alþeodene* gold, 1. 98. 23; line missing in O.

alþeodisc wif, 1. 4. 20; passage missing in O; For *alþeodisc* meiden, 1. 97. 21, has been apparently misunderstood by the O scribe, who writes *aluis* maide, 'fairy-like, lovely'. This word will be dealt with in Part II, on 'Ancient Poetical Words and Phrases in Layamon'.

AT-BREAC, -BRÆC, (pret.) from OE **ætbreacan* 'to break away, escape' occurs in both manuscripts in 1. 57. 17, but in 1. 68. 13-14 where C has un-æde hi seolf *at-breac*, O has *vnneþe ascapede*. For examples of this word in C see list of French and Latin words in Part II.

AT-WINDEN, OE *ætwindan* 'to escape, fly away': buten while þat þer *at-wond* þurh wode burȝe, 1. 92. 5-6; O bote woch him *hude* in wode oþer borewe; þæt folc þe on þan fehte *at-wond*, fluzen of þan londe; O þat folc þe *scapie* mihte, fleh vt of þan fihte, 1. 92. 11-12.

ATYR O = 'equipment'. The passage runs:—

Me under-feng þane

.
.

mid his fourti cniþtes

and hire hors and hire *atyr*; and al þat him behovede, 1. 139. 3. etc.

The corresponding passage in C is:—

Me vnder-feng þene king; mid mochele feirnisse and wel me him dihte: mid feowerti hire cinhdtes. mid horsen and mid hundes, etc., etc.

ERENDRAKE, OE *ærendraca* 'messenger, ambassador'; and nom *erendrake* godne, 1. 354. 13; O one *messagere* god.

BÆCH 'valley', not found in OE, but cp. *beche*, Owl and Nightingale 15 (Jesus MS.) in one hurne of one *beche*. He bicom in a *bæch* 1. 110. 5; O in one *slade* (OE *slæd* 'valley'); ferde æfter ane *bæche*, 1. 33. 2; O in one *wei* verde. into ane muchele *bæche*, 1. 240. 17; O *slade*. of dalen and of dunen: and of *bæcchen* deopen, 2. 490. 22-23; O omits lines.

BÆRN, BERN, BARN, BEARN. This word, which occurs a great many times in C, is entirely absent from O. The later text substitutes *dohter*, 1. 47. 1, *so(ne)* 1. 214. 10, *deorling*, 1. 244. 19, *children*, 1. 244. 2 (l. 6. in C) The passage is missing in O in 1. 5. 11, 1. 8. 9, 3. 294. 16. In 2. 232. 14. for wha streonede þe to *bearne*, O writes simply *wo streonede þe*.

BÆRN-LES, OE *bearnleas* 'childless': þe king wes al *bærn-les*, 1. 383. 15; O þe king *eyr* nadde non. The line for þe king is al bedæled sune and eke dohtren 2. 548. 9. is rendered in O and *eyr* naueþ he nanne.

BAIȝ, BEH, OE *beaȝ* 'golden ring, torque, jewel': Heo unbunde þa locun: drowen ut þa *baiȝes* þa palles and þa purpres, 1. 252. 24-253. 2; O and drowe vt þe *porses*.

BEARN, BEORN, BURN, OE *beorn* 'man, warrior': *beornes* þer fullen, 1. 194. 1; also alle his *burnes*: duden on heore burnen 1. 213. 14-15; in both of these passages O has *cnihtes*; þe *bearn* wes abolȝen 1. 67. 1; O has merely *he* etc. In 2. 285. 6-7 C and *æuerælc* *beorne*, O has ech eorl and ech *barun*. C also has this French word, 1.226. 24.

BEMEN, BEOMEN, BEMES, etc. 'trumpets', OE *bieme*. O substitutes *hornes* 1. 368. 10, but has *beumes*, etc. in many other passages, e.g. 1. 339. 18, etc., etc.

- BIDAN** 'to await; to experience, undergo', OE *bidan* in same senses. heo haueden unne sæ: seorwen *ibidene*, 1. 267. 15-16; O mochel wowe *isoffred*.
- BI-LUUIEN** 'to approve, be pleased, to delight in'. This word is by no means unknown in O text, but in 1. 99. 12, where C has Loerin þis *biluuede*, O writes Loerin *ipaid* was. For other instances of this French word used in the sense 'satisfied, pleased', see under *zetten*, and *heren*.
- BITEN**, OE *bitan* 'to bite, bite into, penetrate', used in poetry of a sword, etc: þa scipen *biten* on þat sond, 1. 76. 9; O þe scipes *smiten* o þan strond. Both texts use the word in the old poetical sense of the action of a sword, see Part II—subsequent article.
- BLANKE**, OE *blanca* 'a white horse, horse': anan swa ich lihte of *blonken*, 1. 34. 15; O of mine *horse*. Lihted of eowre *blanken*: and stonde on eowre *sconken* 1. 250. 7-8; O of zoure *hors* alihtep.
- BOC-RUN**, stille *boc runen*: heo senden him to ræden, 1. 192. 2-3; O one *derne lettre*.
- BOLLE** 'goblet, cup', OE *bolla*: mit guldene *bolle* 2. 612. 4; O mid gildene *coupe*.
- BRÆDEN, BREDEN**, OE *brædan* 'to spread': bord he hetten *brede* 2. 173. 12; O *sprede*. bordes heo *brædden*, 2. 553. 12; O bordes hi *leiden*. bordes *bradden*, 2. 533. 1; O bordes me *wyde*.
- BURNE** 'cuirass, corslet', OE *byrne*. nom his *burne*, 1. 396. 3; O *seine*.
- BURST**, OE *byrst* 'loss, injury, etc': þa king Gossar iseih his *burst*, 1. 68. 23; O *lure*. hit wes ladlich *burst*, 1. 294. 11; O *deolful þing*. þe *burst* wes vnimete, 3. 95. 11; O þat *fiht*. On the other hand, both texts have *burst* in 1. 265. 19.
- CHIRECHE** 'church', OE *cirice*: ane *chireche* swide faire 3. 38. 12; O *chapel*.
- KINEHELM**, OE *cynehelm* 'crown': he his *kinehelm* on-feng, 1. 288. 17; O þe *croune* he nam on honde. C uses the French word elsewhere in this sense, and also in the sense 'head', 1. 123. 11; and 1. 316. 20. The verb *cruni* occurs in both texts 3. 284. 19, and 285. 1. In 1. 38. 18, O has and beo king *icruned*, where C writes and beon þere leodene king.
- CLUD**, OE *clud* 'rock': wes þa *clude* swiþe heh 1. 81. 15; O þe *cleue*. þa (*c*)*lude* 1. 33. 7; O *cleue*. þat fole flah into wuden: and wuneden in *cluden*, 2. 282. 11-12; O ine *stockes*. But in 2. 489. 24, where C has *clud*, O writes *chlud*.

(BI)CLUSEN 'to enclose, shut', cp. OE *clūse* 'confinement': *uppen sæ-stronde*: Tintaicol stondeð, he is mid sæ cliuen: *faste biclused* 1. 358. 8-11; O *bi-tuned*. wel heo *clusden* heore zeten, 1. 416. 13; O *tunde* hire zates.

CONTRÉ O 1. 54. 24; C *bi þe montaine* of Azare.

DELAIE O The half-line *wip honte delaie* rhyming with in þan *Witesone-daiȝe*, takes the place of *al his drihtliche uolc* in C, the second half-line being to *White-sunedæie*, 2. 308. 22-23.

DRAȜEN, OE *dragan* 'draw, withdraw': (after þan Alemainen) þe weonen awei idraȝene, 2. 342. 16; O þat *a-chaped* were.

DRIHT-FOLK, OE *dryht-folc* 'host, multitude': mid mine *driht folke* 1. 59. 13; O *gode folke*. mid his *driht folke* 2. 270. 23; O mid *alle his folke*. The word occurs again in C 2. 359. 7, where the whole passage is absent from O.

DRIHTLICHE, OE *dryhtlic* 'lordly, noble': his *drihtliche lond*, 1. 7. 17; passage missing in O. *drihtliche lond*, 1. 10. 11; O *kine lond*. *drihtliche folk*, 1. 37. 5; O *gode folke*. *drihtliche quen*, 1. 124. 9; O his *oze cwene*. See also passage cited under *duȝeð*. The word, however, occurs elsewhere in O, e.g. 1. 197. 6 and 194. 12, etc.

DUHTI 'strong, bold', etc., OE *dyhtig*: his *duhtie cnihtes*, 3. 244. 10; O *stalworþe*. The word is otherwise common to both texts.

DUȜEÐE, DUWED, etc. 'body of retainers, fighting men, knights', OE *dugup*, 'retainers; nobility; might', etc. The word occurs occasionally in both texts, e.g. 1. 77. 16, 3. 127. 3, and 3. 128. 3. In many passages, however, O substitutes another word, or turns the phrase differently: þa seide þe king Arimagus: and wið his *duȝeðe* he spac þus, 1. 418. 20-21; O to his *cnihtes*. al his *duȝeðe* mid him, 3. 183. 20; O *cnihtes*. The same substitution occurs also 2. 338. 17. þer he sloh þen duc: and al his *duȝeðe*, 1. 273. 16-17; O al his *leode*. þa þa *duȝeðe* sturede, 3. 12. 18; O þo þe *ferde wende*. þa wes þe duc dead: and Brennus havede his *duwede* 1. 210. 23-211. 1; O has B. nam þe *cunde* to his owene hond. bfore mire *duȝden*, 1. 127. 17; O mine *men*. (heo hafden) . . . binomen him (= Leir) is *doȝeðe*: and al his *drihtliche folc*, 1. 144. 18-19; O his *cnihtes* and al hire *sweines*.

The word is used in the sense of 'strength, might, power' in the following passage where the poet is speaking of the fox with plenty of game at his command to which Childeric is compared:

naueð he næuere nænne kare

he weneð to beon of *duȝeðe*: baldest alre deoren, 2. 451. 17-19;

O writes—he weneþ þat he be þanne boldest alre deore, omitting altogether an equivalent of *duzede*.

Several compounds with *duzede* occur in C, but O always avoids them: *duzede-monnen*, 1. 164. 10, passage absent from O; *duzede-cnihtes*, 2. 433. 16; O simply *cnihtes*; to his *duzede-kinge*, 3. 30. 13; O to *Arthur þan kinge*.

EAR3H, etc. 'cowardly, timid', OE *earg*. O has this word once in agreement with C.—*ærhest* in C, *zearphrest* O, 2. 489. 5. In two other passages the scribe of O avoids the word; and in 3. 266. 14 alters the passage and substitutes *dohti*: Oswy his broder is oht cniht: and *arð* heorte na wiht, 'no whit timid in heart'; O and his broþer cniht swiþe *dohti*.

ENDE-DÆI 'day of one's death, end of life', OE (poet.) *ende-dæg*: þæ com his *ende-dæi*: þat þe king dæd læi, 1. 158. 11–12; O þo com his *lifues hende*: þat no man ne mai at-wende. It is significant that the scribe should have gone out of his way here to produce a new rhyme, which he would hardly have done had the old compound not been unfamiliar to him. Again in 1. 383. 11–12, C has þa his *ende-dæie* com: in Eouerwicke heo dæide; O omits the former half-line and has simply in Euerwicke deaide.

EXLE, ÆXLE 'shoulder', OE *eaxl*. This word seems to be by no means rare in ME, yet in 1. 96. 7, where C has he lædde on his *exle*:ane muchele wi-eax, the O scribe writes bi his *harsum* (cp. French *arçon* 'saddle-bow'), and in 2. 332. 11–12, where C has hengen an heore *æxle*: muscle wi-æxe, O omits the two half-lines.

FÆIE-SID, etc. 'death, destruction', cp. OE *fæge* 'doomed to die, fated, on point of death', and *sip* 'journey', used of the departure of the soul from this world, as in *forþ-sip*, etc. The compound is found in both texts, but less frequently in O where some other expression is sometimes used: þes fuþel tacnede: *fæie-sið* þes kinges, 1. 120. 12–13; O þes fowel toknede: Rudibras his *deape*. þa he to wode ferde and his fader mid him: and *feie-sið* makede, 1. 14. 2–4; O he verde to his *heuele*—'misfortune'. and iseþen þat heore uole: *fæie-sih* (sic) worhte, 2. 444. 22–3; O isehþe þat hire folke: *folle to grunde*, cp. similar substitution in 2. 474. 20–21.

þa veol þe king of horse: and *fæi-sið* makede.

wel wes al þis folke: for his *fæie-side*, 3. 152. 6–9; O in which the whole passage is very defective has in the first case . . . *edede his dazes*, and in the second a gap. . . . heo auered weoren: for heore *uxie-siden*; O afered weoren: alle þat þar woned.n., 3. 116. 18–19.

UÆX, OE *feax* 'hair':

and heore *uæx* fære: wælden to volde, 2. 495. 3-4;

O and hire *her* feire: al hii to-tere.

þer heom buzen to: Bruttes swide wrade,

luken heom bi *uaxe*, 2. 621. 23;

O þar hii leope zam to: Bruttus swiþe wrode

and tiere zam bi þan *heere*.

FASTLICHE, **FESTLICHE**, **VASTLICHE** 'firmly, resolutely', etc., in both texts, but in 1. 35. 6, his horn he *vastliche* bleu, O substitutes *mainliche* 'with force, violently'.

FEREN, OE *feran* 'to carry, transport', also (intransitive) 'to go on, behave'. C uses the word in the sense of 'make use of, practise' when followed by *mid* in the line: muchel heo *ferden mid* þan crafte: to lokien in þan lufte, e. 598. 8-9. O substitutes a French transitive verb: mucho heo *vsede* þat craft: to lokie in þan lufte. For another example of this verb in O see under **SPELIEN**.

FLIT 'quarrelling, dispute,' OE *flit*, 'contention, dispute': þa iherde Hadur: þat *flit* of pissen eorlen, 2. 627. 7-8; O þat *strif* of þis cnihtes.

FRÆINIEN, **FRÆINI**, etc., OE *frignan* 'to ask, inquire'. The verb in the forms indicated is frequent in C and always weak. In O it is usually either replaced by *axi*, or the passages are missing. He hine *fræinien* gon 2. 293. 10; O he *axede* him anon. þu *fræinest* of þan draken 2. 247. 10; O þou *axest* of þan drake. In 1. 309. 9 where C has þa *freinede* Julius, O writes —þo *saide* Julius.

FRID (1) 'a park, a chase': 3e huntied i þes kinges *fride*, 1. 61. 10; O i þes kinges *parc*. A few lines lower down both texts have for-boden he haved his deor *frid*. The lines 4-5 p. 237, and hu he sette sciren: and makede *frid* of deoren are wanting in O. Cp. *he sætte mycel deor frid*, Peterb. Chron. for year 1086, Plummer 1. 221.

FRID (2) 'peace, amity', OE *frid*. This word, which is frequent in C, especially in the phrase *inne gride* and *inne fride*, does not occur in O. In this text the passage or line where it is found in C is not infrequently left out by O. In at least three passages, however, O uses another word: *inne gride* and in *fride*, 1. 21. 11; O in *pais* and in *gride*; the same phrase is rendered by O in *grid* and in *paise*, 1. 106. 23; and in *gride* and *blisse*, 2. 531. 12.

UUL, OE *full* 'cup, beaker'. The O scribe has apparently misunderstood this poetical word in the following passage:

Hit beoð tidende: inne Sæxe-londe

whær swa æi duȝede: gladied to drenche

bat freond sæide to freonde: mid fæire loken hende
 leofue freond wæs hail: þe oder sæið drinc hail.
 þe ilke þat halt þene nap: he drinkeð up.
 oder *uul* me þider fared: and bitheched his iueren.
 þenne þat *uul* beoð icumen: þenne cusseod heo þreoien, 2. 175.
 6-19.

The O scribe evidently does not know the word *uul*, though he is familiar with *nap*; he therefore renders the first half-line above which contains the old word: and a³eo me hine fulþ, 'they fill it up again', whereas it clearly means 'they bring up another (second) beaker'. The last two half-lines where the word recurs, he leaves out altogether.

FULST, VULST, OE *fylst* 'help, succour'. The phrase *to fulste* occurs in both texts in 1. 322. 5; in C only in 1. 74. 16, where O omits the half-line; in 2. 466. 2, C has mid drihttenes *fulste*, the line being wanting in O, while in 3. 271. 19, *to vulste* and 3. 146. 3, *to fulste* is rendered to *healpe* by O.

The word *fulsten* is used fairly often in both texts, e.g. 2. 575. 7, etc., but in 2. 468. 7, the nu *fulste* us drihte of C is rendered now *helpe* ous drihte, by O.

GAUEL, OE *gafol* 'tax, tribute':

He nolde for nana dome: mare heren to Rome
 ne na *gauel* heom senden: vt of pissen londe, 1. 192. 11-14

O replaces the OE word by the OFr. *truage*; the same substitution takes place in 2. 630. 15. In 1. 420. 4, etc. C has:

hu þu mine fader swore

to lasten alche zere: al to þine liue.

gauel in to Rome: of þine kine-dome; but O writes *feo* here, and again in 2. 96. 13-14. In several passages both texts use *gauel*, e.g. 1. 260. 16, 261. 11, 378. 14, etc.

3EDDES 'words', from OE *g(i)edd*, 'song, poem; speech, narrative': and hire *zeddes* sæide: *geomere* stefne, 3. 185. 10-11; O hire *wordes*.

3EDDIEN 'to say, recite', OE *gieddian* 'to sing, recite (of poetry), to speak.' þai *zedede* þe king: mid *geomere* worden, 1. 142. 18-19; the lines missing in O. þa *zeddede* þe king, 1.336. 12; O *seide* þe king; O has also *seide* for this word in 1. 342. 6. In 3. 476. 6, C has and þus *zeddien* agon; O and þes word *seide*.

3EOMERE 'doleful, miserable, sad, lamentable', OE *geomor* 'sad, mournful'. In the first passage quoted above under *zeddien*, the second half-line has *rouliche* stefne in O. Elsewhere where *geomere* occurs

in C, O either omits the passage altogether, or substitutes a colourless word as in 2. 77. 15-16 where C has: þe *zemere* scipen: þa *zeond* þa sæ weolken, and O þe ilke scipes. In other places the whole passage is missing from O.

ZEOND, OE 'throughout, over, across': þer comen seilien sone: *zeond* þa sæ wide scipes uniuo3e, 3. 12. 7-9; O *oueral* þan see.

GETTEN, OE *geatan* 'to grant, confirm, assent to'. This verb is nearly always rendered *granti*, *granty*, pret. *grantede* in O 1. 204. 9; 2. 167, 25, 573. 1, 522. 21. In 2. 14. 12, however, where C writes al hi *zette* him, O renders it and him *paide* swiþe wel.

GILE O 'guile, treachery'. This French word occurs twice in O *for gile*, where C has *for vuele*, 1. 135. 22; and in 2. 262. 8-10 where C has:—
þat ich mote ibide: þat Hængest cume riden
þa is a þissum londe: swa longe atstonde
and *biswac* min leofe freondes
which is thus paraphrased in O:
þat ich mai eny fiht of Hengest habbe
he solde bitere abugge al his stronge *gile*.

3ISEL OE 'hostage'. Both texts have *3isles* in 1. 327. 5; 2. 283. 17; and 2. 447. 12. In several instances where the word is found in C the lines or passages are absent from O, e.g. 2. 283. 4; 2. 462. 10; 3. 248. 3. etc. More interesting are the cases where another word is substituted by the O scribe. Thus *hostage(s)* is found in O 1. 380. 1; 1. 226. 22; 1. 204. 13; 2. 254. 6, and *children* in 1. 232. 7; 1. 233. 3; 1. 235. 3, etc.

GLÆS-FAT, OE *glæs-fæt* 'glass vessel': He nom his *glæs-fæt* anan: 7 þe king mæh þer on, 2. 319. 12-13; O *vrinal*; similarly in line 14 of the same page the same word in C is expressed by *vrnal* in O.

GRÆDIEN, etc., from ON *greida* 'to prepare, get ready'. In this sense the word is fairly frequent in both texts, e.g. 1. 46. 15 and 23; 1. 344. 7; 2. 300. 17, etc. On the other hand in the sense of 'treat, behave to', it is replaced in O by *sarui*:—

he letten him smiten of þæt hæfde: biræiuie hine at live

and þus he heom græide: mid grimme his gumene;

O þus he 3am *sareuede*. See also **HEREN** and **ÞEINEN**, and **SARUI**.

GRAS-BÆD 'grassy bed, turf, the ground'; the compound is not found in OE: græmende segges: *gras-bæd* isohten, 2. 564. 14-15; O þane *grund* sohte;

þa feol Frolle: folde to grunde

uppen þan *grasbedde*: his gost bilæfde, 2. 585. 2-5;

O dun to þan *grunde*.

GRURE 'fear, terror', OE *gryre*: þer wes wunderlic *grure*, 3. 105. 12; O *cri*. See also under LUDE and WEOP.

GUME 'man, warrior', OE *guma*, occurs in both texts, though O sometimes omits or has lost the line, and in 2. 86. 6, *gumene* forcudest, replaces it by more prosaic *manne*. The same substitution occurs 2. 239. 18: god seolf þe *gumene* is lauerd, where O writes *mannen*. In 3. 90. 17, O substitutes *cnihites*.

HÆF pret. 'raised' (the infinitive is written *hæhuen*, as though connected with *hæh* 'high'), OE *hebban* 'to raise, heave': Nennius *hæf* up his sceld, 1. 321. 17; O *pulte*, cp. OE *pullian* 'to pluck, pull'?

HÆLEþ 'warrior, hero, man', also in OE poetical usage. Though fairly frequent in C, this is not found in O. In this text the word is either omitted altogether as in 1. 31. 10; or is part of a passage which is missing or omitted from the later text, as in 2. 462. 6, and 3. 90. 11; or is replaced by another word. The word *folk* is substituted in 1. 58. 2: C *haledes* weoren blide; O *folk*, etc; 1. 132. 18, *heleden* he was ældere; O *folke* he was eldere; the corresponding case of *cniht* is found instead of *hæled* in O in 1. 75. 24; 2. 173. 9; 3. 136. 18.

HÆNE 'poor', OE *hēan* 'humble, abject, poor': þenne ne mai þe atwite: þe *hæne* ne þe riche, 2. 50. 4; O þe *pore* and þe riche. Apart from these passages, the lines in C containing the word appear to be wanting in O. *pouere* occurs in C 2. 531. 4.

HÆP(E), HEPE, OE *hēap* 'troop of soldiers; band, company of persons'. While both manuscripts have the word in 1. 35. 14, and O has *heap* where C has *hired*, 2. 4. 11, the O scribe appears to prefer to avoid it in 1. 252. 9, where he turns the phrase differently: C and slowen alle heore hors: here *hæp* wes þe lættre; O þa hii wer alle a fote. Again in 3. 192. 4-5, C: he *hæfden* in seuen *hepen* (= companies): sixtene hundred muncken, where O writes: he hadde in soue *abbayes* for the first half line. Doubtless these were suitable institutions for monks, but the statement in the earlier text is much less specific.

HÆRIȜEN, HERIEN 'to devastate', OE *hergian* 'harry, pillage', etc. This word which is frequent in the older text seems not to occur in O which either omits the passage or replaces the word by another: *heriȝen* in sudlonde, 1. 159. 8; O *werri*; and *herȝede* þat lond, 1. 70. 5; O *awan*; heo *herȝeden* France, 1. 111. 23; O *wonne*; þat lond heo þurh arnden: and *herȝeden* and barnden, 2. 81. 11; O *sloȝe*; O has also *sloȝe*, *slowen* in 1. 163. 3, 1. 422. 22, and 2. 315. 8, where C has *herȝede(n)*. The lines 1. 44. 1, and 3. 211. 13, where C has *herȝede*, *herie*, are missing in O.

HAUWERES, HAURES, HAWRES, etc. 'spies', from OE *hawere* 'spectator'.

This word, always in the Pl., occurs about half a dozen times in C text, but not once in O. In 1. 63. 19, and 23; 3. 39. 11; 3. 69. 24, O substitutes *spiares*, the word being defective in the last passage and only *spia*... being legible. In 3. 81. 15, and 3. 223. 7, the passages are missing from O.

HERE-, HÆRE-GUME, OE **here-guma* 'warrior'. This compound occurs three times in C but is evidently not familiar to the O scribe. The following are the instances: *hædene hære-gumen*, 2. 184. 4, line omitted in O; 2. 380. 17, where O writes *hired-gumes* 'household retainers', instead of *here-* 'battle men'; 2. 426. 15, mid swide *hærde hæregumen*; O swide *kene gumes*.

HERE-KEMPE 'warrior', OE *here-cempa*: mine *here-kemppen*, 2. 441. 23; O *deorworþe kempes*; heze *here-kempen*, 2. 525. 4; O omits line; also 2. 577. 17, where O substitutes *baldere Bruttus*, words which occur in the next line in C; and 2. 617. 18; line missing in O. The lines in C 3. 104. 24, and 130. 8, which contain the compound, are not in O.

HERE-MARKEN, -MÆRKEN 'standards': þe king heom sette in ane hulle: mid feole *here-marken*, 3. 83. 1-2; O mid mony *pensiles*. The last word is Old French *penoncel* 'a little banner'.

HERE-SCRUD 'armour'. Not in O. See Part II—subsequent article.

HERETOȜE 'leader of an army, chief', OE *heretoga*: *hertoȝe stæpne*, 1. 251. 1; O anne *cheuetaine*; hæfden he(o) to *heretoȝe*, 1. 426. 3; O *heuedling*. In 2. 5. 7, O substitutes *kine-louerd* for the older compound.

HEREN (1) in sense of 'to obey, acknowledge supremacy of, serve', etc., OE *hieran*, *hēran*, 'to hear, listen to, obey'. O replaces the word in these senses by the French *sarui*. C *heren* þat he him wolde, 1. 169. 1; he seide þat he wolde him *heren*, 1. 204. 14; þat heo him wolden: *heren* i þisse londe, 2. 153. 18-19; O has the infinitive *sarui* or *sareui* in all these passages. Further, alre cnihten wideow best: þe *heren* æie kinge, 2. 205. 13-14; O *sarueþ*; 7 he *herde* þon king, 2. 207. 5; O *saruede*.

HEREN (2) 'to hear; hear with satisfaction, be pleased'. The word is apparently used in the latter specific sense in C 1. 138. 20-21: 7 Leir king hit *iherde*: 7 eft him wes þe worsse, which O renders: and Leir king was wel *ipaid*: 7 eft onlikede. For other instances of *ipaid* in this sense see under BILUUIEN and ȜETTEN.

HIRED, HIRD 'troop; household, men of the household; host; court, hall',

OE *hired* 'household, household retainers', etc. This word seems to be unknown to C in its simple form, though it occurs as the first element in several compounds. O replaces the simple word once by a French word: And rade a3æin comen: cnihtes *to hireden*, 3. 7. 16-17; O *to route*. See also WEORED. Teone wes on *hirde*, 1. 98. 16; O on *folke*; þa hehste of þan *hirde*, 1. 98. 21; O of þan *londe*; to mine *hirede*; O *londe*, 1. 351. 4, also 2. 637. 8. O substitutes *ferde* in 1. 262. 16, and 63. 20; in 2. 429. 4, 494. 8. and 532. 141; in 3. 131. 1 stolen ut of *hirede*, 1. 100. 2; O ut of *halle*; mid *al his hirede*, 1. 143. 18; O his *cnihtes wonede bare*. The line or passage where the word is found in C is often missing from O, e.g. 1. 99. 8; 1. 360. 21; 2. 3. 20; 2. 153. 12, and 179. 24; 3. 206. 1. In 3. 39. 2, and elsewhere, O avoids rendering the word. For *i þan hirede*, 3. 224. 7, O substitutes *mid þan king*. For *blisse wes an hirde*, 1. 154. 16, O writes *blisses were riue*.

HIRED-CHILDREN 'pages'? 2. 269. 15; O HIRED-MEN.

HIRED-CNAUE 'servant, page': 1. 241. 14; *heorede-cnauen*, 2. 456. 17; *hired-cnafe*, 3. 153. 16; all three passages are missing in O.

HIRED-GUME 'courtier, household retainer', 2. 88. 5; missing in O; *hired gumes* occurs however in O 2. 380. 17, where C has *here-gumen*.

HIRED-PLÆIE 'courtly sport(s)':

þenne mihte þu mid winne: þi lif al forwerien

mid haeken and mid hunden: *hired plæie* luuien 2. 181. 20-23.

The lines are omitted by O.

HERD-SWEIN 'court servant': 1. 241. 12; O nanne *sweyn* ne *cnaue*.

HO3IEN, HEO3IEN, OE *hogian* 'to plan, plot, purpose; to consider, think over'.

ælc on his hælue *hozede* zeorn

hu he mihte þene king morðe aquellen, 2. 404. 20-405. 1; O *aspide*.

In 2. 136. 12. C uses *hozede* in sense of 'intended, purposed', but O substitutes *seide*.

HONURE (O). This French word is introduced by O in an expansion of the passage in C: and leide hine mid *honure*: he3e in þan toure, 1. 259. 18, thus securing a rhyme, where C reads: he hine duden he3e: an ufemeste þan ture.

HUSTING ON 'assembly, council': heolde *muchel husting*; O *conseil grete*. O is shy of this word, though it occurs in 1. 37. 7, and 203. 10. Otherwise O uses a different word or phrase: Mid *carte* he for to Lundene: and sette *hustinge*, 2. 50. 22-23; O he lette cleopie his *he3e men*: to one grete *speche*. O renders the word by *speche*

also in 1. 218. 11; 2. 56. 23; 2. 7. 14; by *speking* in 2. 118. 7. In 2. 51. 241 C has he stod up i þan *hustinge*, but O simply he stod up anon riht. O omits or has lost the passages or lines where the word occurs in C 2. 57. 1; 3. 148. 16, and 3. 287. 3. In 2. 61. 24 the word is rendered *paisinge* by O.

LADLICHE 'hateful, terrible; sad', OE *laplic* 'hateful, horrible'. *ladlich* burst, 1. 294. 11; O *deolful* þing. This French word occurs again in O 2. 75. 18, where *deolfulle* cri, is substituted for *vnimete sorzen* in C.

LECHES, LECHEN, from the rare OE *lēc* 'look; sight', recorded in only two passages in Bosworth-Toller, and in two more in the Supplement. The word is derived from the base of OE *locian* 'to look'. It occurs fairly frequently in C text, but not in O, the scribe of which appears not to have understood the word. It expresses various shades of meaning. Madden gives 'looks, glances' in the Glossary; Bradley (ME Dictionary) 'countenance'; Hall (selections from *Lazoman*) adds the further sense 'emotions, sentiments', in the passage *Ælc hafde an heorte: leches heze*, 2. 532. 16-17, which O omits altogether. As a rule the sense is 'glances'; 'looks, aspect, appearance', or 'countenance, expression of face'; also perhaps 'demeanor'. It is interesting to see the various shots which the O scribe makes at the meaning of the word.

It is written of Leir that: he morznede swiþe
and þas word seide: mid scornfulle *laichen*, 1. 145. 2-4;

O renders the last word by *speche*;

þer wes moni bald Brut: þe hafde beres *leches*
heouen up heore bruen, etc. 2. 332. 8.

O writes þar was mani bold Brut: kene to neode, and omits the next two half lines.

Euielin þene bond (= brond) igrap: mid grimliche *lechen*, 1. 349. 6-7; here O renders the word by *strengþe*. In the fight between Arthur and Frolle it is said that the former rushed—tozæines Frolle: mid feondliche *lechen*, 2. 584. 2; O has mid starcliche *maine*. In the other passages where the word occurs in C, O omits the lines altogether.

ladliche læches: heo leiteden mid eȝen, 1. 80. 8-9. *seolcude weoren heore leches*, 2. 302. 8. mid his *lechen* he gon lizen: his heorte wes ful blide, 2. 148. 16-17; O writes mid his (word omitted) he gan liþe etc. he forlette his brond. and hizinȝe hine igrap: mid grimme his *lechen*, 2. 267. 20-22; and bisæh uppen Brien: mid braden his

lechen, 3. 215. 4-5. and heo up leopen: mid grimliche *lechen*, 3. 52. 5-6.

LEOD-CNIHTES: and þene king lærde: al þas *leod-cnihtes*, 1. 318. 18-19; O alle þeos *kniþtes*.

LEOD-FERDE: al his *leode-ferde*, 1. 36. 11; O.1 his gode *fer*..; *leod-ferden*, 1. 242. 12; O *stronge ferde. leod-ferde*, 2. 446. 8, appears simply as *folke* in O.

LEOD-KEMPE 'national warrior': feole *leod-kempen*, 1. 257. 7; O *fale kempes*. The compound occurs also in 3. 49.1, where the line is omitted by O.

LEOD-QUIDE 'national language': (þe burh) þa we an ure *leod-quide*; *Leirchestre clepiad*, 1. 123. 23-24; O on vre *speche*.

LEOD-RUNEN 'mysteries': Her beoð to þisse londe icumen: seolcude *leod-runen*, 1. 389. 4-5; O selcoupe *tocke*.. ure *leod-runen*, 2. 184. 23; O ure *deorne rouning*. The word also occurs 2. 225. 18, where O omits the line.

LEOD-SCOP 'national poet': Ne al soh ne alles: þat *leod-scopes* singeð, 2. 542. 10-11; O þat many *men* seggeþ.—*leod-scopes* sunge, 3. 229. 12; line not in O.

LEOD-SCOME 'national disgrace, disaster':—Nu is hit muchel *leod-scome*: gif hit scal þus aligge, 3. 45. 8-9; O moche *same*.

LEOD-DEAW 'national custom': mid heora *leoddeawe*, 1. 87. 16; lines omitted by O. *leodene-þeowen*, 3. 296. 21; whole portion of text missing in O.

LIDEN 'to go', especially 'go by sea, to sail', OE *lidan* in same sense; poetical word. The O scribe often omits the line in which the word occurs. He evidently did not know it, and in the following passage, has mistaken it for the adverb *liþe* 'graciously, sweetly': þen oðer dai heo comen *liden*: on æuen to londe, 1. 48. 2-3; which O renders þane þridde dai hii come: *liþe* to londe. O makes a good shot when he substitutes a French word, *passi* ouer bieres, for *liden* mid þen uden, 1. 57. 12; and again when—and lette he forðe *liden* ofer þa streμες, 1. 137. 45, is rendered forð *wende* ouer see streμες. O omits altogether the line *liden* ouer sæ stræm, 3. 242. 18.

LŪDE 'noise, sound'; perhaps this noun is borrowed from LGerm. *lud* 'noise'; cp. the OE adj. *hlūd* 'loud'. þa *luden* heo iherde, 3. 76. 19; O þane *cry* hii of-horde.

LUTLIEN 'to make less, diminish', OE *lytlian*: And *lutlien* ich wulle his kare, 1. 377. 2; O writes *alaski* him of care.

MADMES 'treasures, wealth', OE *maðmas*: 3if he me 3efed gersume: gold and seolver alle his *maðmes*, 1. 38. 9-11; O alle his *godes*. The same substitution occurs again in line 22 of the same page: ne bidde ich nanne *maðmes*, 1. 136. 14; O ne bid ich no *þing of his*. and helize mine *maðmes*, 2. 517. 17; O and oþer *riche 3eftes*. In the following instances either the lines are omitted by O, or the passages are missing from this text:—alle þe *maðmes þa we on horde habbed*, 1. 136. 14. *addele maðmes*, 1. 345. 19; *maðmes ino3e*, 2. 163. 20; alle mine *maðmes*, 2. 205. 19; *maðmes unimete*, 3. 232. 2; his *maðmes leoue*, 3. 241. 15.

MILCE 'grace, mercy', OE *milts*, etc: and war he mihte of his mannen: æie *milce* ifinden, 1. 282. 9-10; O eni *grace* finde.

MUNECLIF 'monastery', OE *munuc-lif* 'monastic life; monastery': at Bangor wes a *muneclif*, 3. 191. 24; O *abbey*. See another instance of this word under *hæpe*.

MUNSTER, OE *mynster* 'monastery, nunnery'. This word is used by the O scribe in 2. 231. 13, but in 2. 231. 8, where C has in ane *he3e munstre*, O substitutes a more specific French word: in one *nonnerie*.

NIPEN 'to grow dark, be dimmed', a characteristic poetical word in OE:

þa hit wes uppen non: þa sunne gon to *nipen*

þer wes Oswy of-sla3en: and idon of lif-da3en, 3. 276. 13-16. O is defective here, and several hundreds of lines are missing.

PAIS (O) 'peace'. Examples of this word in O are given under **FRID**. Two other instances occur in this text where it can hardly be said to represent a specific word in C: O þorh his edmode—þat he neme heom to *paise*, 1. 427. 6-7, where C has þat he nomen him to *þrællen. þrel, þræl*, etc. occurs elsewhere in O, so that the scribe can hardly have misunderstood the word. In another passage O has simply inserted a half-line which does not occur in the earlier text: and bad alle þe vtlawes: þe *pais* wolde habbe, 2. 15. 22-23. C has: and æuere ælcne utla3e: þe his lond hadde bi-bo3en. See also the verb *paisi* under **SEHTNIEN**.

QUARCERNE, QUARTERNE 'prison', OE (fr. Lat.) *cweartern*. Both texts have the word (*quarcerne*) in 1. 31. 19; the line 1. 160. 13, where C has *quarterne* is omitted by O. In 1. 43. 13, where C reads: þa letten bringen þene king vt of *quarcerne*, O substitutes *prisune*; and 2. 386. 4 in þe *quartern* of Lunden, is rendered by O in þe *tour* of Londene; *tur* also occurs in C, e.g. 3. 170. 15, etc.

QUECCHEN 'to shake; to move rapidly, move along, to hurry; to escape,

to nod (the head); to tremble, vibrate', etc. OE *cweccan* 'to shake, tremble, vibrate'. O makes occasional use of this word, but not nearly so frequently nor in so many senses as C.

a) ne lete 3e nænne quick: *quecchen* to holte, 1. 35. 23-24; O *scapie* to felde. Corineus com *quechen*, 1. 65. 20; O *scecky*. ich isæh þare quene scip: *quecchen* mid vðen, 1. 199. 9-10; O *seily bliue*. þa *quahten* heo wide, 1. 310. 14; O þo *wenden* hii wide. seoven kingene sunen þat mid him *quehten* 1. 612. 1; O þat wyn in beare. þa comen Ardures men: *quecchen* after streten, 3. 72. 19-20; O þo comen etc. *faste* in þan weye. þa fond he þar ane quene: *quecchen* mid hæfde, 3. 25. 17, 78; O þo funde he þare one womman sette. *quehten* on hafden: helmes hezen, 3. 71. 19-20; O *setten* on hire h..edes: heze hire healmes.

b) O agrees with C in using *quecchen* in the following passages cited from the latter text:

to *quecchen* to cuckene, 1. 141. 2.

þet is þere quene scip: þe us bi-foren *quecched*, 1. 194. 11-12. þat þa eorde a3æn *quehte*, 2. 421. 23; heo *quehten* heore scaftes, 2. 582. 2. hi3 endliche he heo *quehte* ouer þere Humber, 3. 265. 13-14.

c) In the following instances where the word is found in C, O either omits the line, or lacks the whole passage: buten hwulc wræcche swa cwic: *cuahte* to holde (= holte? See first quotation in a) above), 1. 164. 16-17; *quehten* mid him seolve, 1. 384. 1.

We have thus a considerable variety of ways in which the word could be used.

QUICK, OE *cwic*, 'alive, living'. In the following line the sense is 'lively, vigorous, loud': and him to cleopeden *quickere* stæuene, 2. 88. 21-22; O mid swiþe *loude* stemne.

RÆF, OE *reaf* 'garment': mid gode ræue behon, 1. 239. 17; O mid... *clo*... *clopi*.

ROP, OE *hrop* 'cry'. This word occurs four times in C text, always in such a phrase as þer wes wop þer wes *rop*, 2. 98. 22. In this place O has þar was wop þar was *cri*. In 2. 567. 15. the same phrase is rendered by O þar was *weping strong*. The following lines in Vol. II, in which C has the phrase, or her was, etc., are omitted by, or missing in O: 206. 17, 434. 7, 497. 11. For other examples of *cri* in O see under *sor3hen*, and *weop*.

SÆHTNIEN, **SÆHTNEN** 'to reconcile, bring agreement', formed from OE *sæht*, *seht* 'agreement, reconciliation'. *sæhtne* me wið Rom-

lede, 1. 374. 15; O *paisi* me. and *sæhtnien* him wið Cesare, 1. 377. 3; O and *paisi* wið Cesare.

SARUI (O) Instances of the French word used in O in substitution of specific English words are given under **HEREN**, **GREIDEN** and **ÞEINEN**. The following are examples of the use of the word in passages where a line has been altered or added in O, so that no actual substitution has taken place. The sense in the first passage appears to be 'treat, behave to':—and þus we solle 3ou *sarui*, 3. 56. 5; ech mon þare: *saruede* his freonde, 2. 633. 16–7.

SCÆNEN, **SCENEN**, 'to split, shiver', OE *scænan* 'to break, split.' This word is used several times in both texts in reference to the splitting of shields, helms, and burnies. O omits several times a line in which C has the word, and in two instances replaces it by quite a different word:

helmes þer *scenden*, 2. 397. 5; O healmes þer *zolle*; and *scænden* þa brunies 3. 220. 18, where O has *faulsede*. For the use elsewhere of this French verb in C, see the list of French and Latin words in C.

SCONKE 'leg', OE *sceanca*, *sceonca*: his *sconken* he helede: mid hosen of stele, 2. 463. 19–20; O. *legges*.

SCRIBEN, OE *scriban* (poet.) 'to go, move along, to glide, to sail (of clouds, etc.)'. O seems always to avoid the word which C employs fairly often, either omitting the line, or replacing by a colourless word: he *scraþ* to þisse londe, 1. 175. 14; O *com*: þat ic heo þurh *scriðen*; O þorh *ride*; forð he gunnen *scriðen*; O *gonne gon*.

SCUCKE, OE *scucca* 'demon, evil spirit'. The word occurs several times in C in the old sense, but is replaced by *feond* in O: 1. 49. 11; 1. 50. 3; 3. 30. 23.

SEGG 'man, warrior, etc.', OE *segg*. This word appears to be unknown to O which substitutes *man*, 1. 342. 11; *hontes* 'hunters', 2. 451. 21; *cnihtes* in 3. 72. 24. In 2. 625. 21, where C reads also *segges* hit telled, O has ase þis *wise* telleþ. Lines 2. 564. 14 and 3. 97. 7, where *segge*, etc. occurs in C, are absent from O.

SEINE (O) 'banner', OE *seg(e)n*, fr. Lat. *signum*. cp. Beow. 46–47:

þagyt hie him asetton *segen* gyldenenne
heah ofer heafod.

There seems no reason why this should not be inherited from OE. The later text in this case preserves an interesting word lacking in C:

he funde anne *cniht*: þat was islawe þar riht
nam he his *seine*, 1. 396. 1–3;

C here has the much commoner word *burne*.

SERUINGE C 1. 345. 22; O *service*.

SKENTING: C speaking of the attack of King Uther who was with the wife of Gorlois at Tintagel, has: *his iherde þe king: þer he læi an skentting*; which O renders *asweting*.

SORȜE, etc. 'sorrow, calamity', OE *sorg* 'care, anxiety, sorrow', etc. A word frequently used in both manuscripts. The line for þan vnimete *sorhȝen*, C 2. 75. 19, is rendered by O for þane deolfulle *cri*.

SOT, OE *sott* 'a fool':—Cniht þu ært muchel *sot*, 1. 61. 20; O muchel *fol*. The same substitution takes place in O in 1. 96. 15, and 281. 1.

SOTHSCIFE (sic), C 1. 128. 13; O *folie*.

SPELIEN, SPILIAN, OE *spellian*, 'to speak, converse; to utter, say'. The phrase in C þat folc gan to *speluian*: Irlandes speche, 1. 429. 14–15, is rendered by O þat folc gan to *usi* etc. The word *spelian* seems to be unknown to the O scribe, who in other passages substitutes more ordinary English words: þa he alles *spac*: mid þræte he *spilede*, 1. 21. 19–20; where O has *seide*; cp. also 1. 37. 13; 337. 6; 2. 594. 8. In 1. 141. 10, O has *spac*. For another example of *usi* in O see under *fēren*.

STREON, OE *gestreon* 'progeny, offspring'. Both texts employ the word in this sense, but once O uses a more commonplace word:

seouentene þer foren: þat kinges sunen weoren
þer weoren twenti and æhte of eorlene *streon*, 1. 159. 4–7; O eorlene *sunes*.

SWEORKEN, OE *sweorcan* 'to grow dark': *swurken* under sunnen: sweorte weolcnen, 2. 74. 19–20; O *þirkede* vnder sonne: þustrede þe wolcne.

SWIKEN, OE *swican* 'to deceive, betray': he wende þat Androgeus: *swiken* hine wolde, 1. 380. 18–19; O *bi-traie*. In 2. 262. 10, where C has . . . *beswac* mine leoue freondes, O has al his strong *gile*.

ITASE 'handy, convenient', OE *getæse*. And þe king drouh his sweord: þe him wes *itase*, 1. 277. 12–13; O þat he *louede swiþe*.

TUNNE and in OE 'a tun; a tomb'. The word is used in reference to the tomb of King Belin: heo makeden ane *tunne*: of gold and of gimme, 1. 259. 14–5, where O writes *tumbe*.

TWINEN 'to twine, twist'. þaþe twa ȝer weren agon: þa *twineden* here þonkes, 1. 161. 12–13; O *chANGEDE*.

ÞEIN, OE *þegn* 'king's officer; noble, knight'. This word occurs very often in C, and in both texts in 1. 218. 18 and 3. 82. 21. When the line or passage is not omitted by O, the most common equivalent

for the word in the later text is *cnihtes*, e.g. 1. 47. 5; 2. 34. 22, 356. 20, etc.; 3. 7. 12. In 1. 287. 22, O substitutes *eorl*; in 1. 140. 6, O has *sweynes*, a word which occurs in C rhyming with *peines* in 1. 140. 7. In 2. 374. 9, his gode *pein* Ulfen, is altered by O to his gode *freond* Merlyn. O once writes *peines* where C has *pewes*, 1. 91. 9. See this word below.

PEINEN, ÞÆINEN 'to serve (as a thane)'. to *þæinen* þere quene 2. 612. 13; O to *saruy* þe cwene. The Pret. Pl. of this verb occurs 2. 611. 10, but O omits the half-line.

PEWES, ÞEOWES, etc. 'good customs, virtues'. Although this word is perfectly well known to the O scribe, cp. *þeowes* he louede, 1. 13. 23, he makes an extraordinary mistake in 1. 91. 9, where for *vuele* weoren his *pewes* of C, he writes *peines* weoren kene! This is the more remarkable since *pein* is very rare in O.

ÞUS, as in OE, 'thus, in this manner'. *þus* weoren idihte, 2. 373. 2, which O expands to *in ilke manere*.

UN-ĒDE 'uneasy in mind', OE *uneade* 'difficult, troublesome'. Corineus wes *un-ēde*, 1. 96. 3; O *anued*.

UN-FAELE, UNUEELE, UNIUELE, OE *unfaele*, 'evil, sinister, ill-omened; unfortunate'; cp. *þat lond is grislich und unfele þe men beoþ wilde and unisele*, O and N 1003. The word does not occur in O which twice omits the passage where it is found in C, and once substitutes *onseale* which has a similar meaning. The latter passage is in 2. 580. 9-11:

þe king wes *unuele*

þat he æuere þohte: wið Arðure to fehte.

O omits the lines in the following passages:

neh þere sæstronde

is a mære swide muchel: *þat water is un-fæle*, 2. 501. 5-7.

mid fiscen and mid feozelen: mid *uniuele* þingen, 2. 489. 15-16.

UUEL n. 'evil', OE *yfel*. A common word, yet O substitutes *gile* in 1. 135. 22. For other instances of *gile* see under **SWIKEN**.

WADEN, OE *wadan* 'to wade, go; press forward; penetrate'. *þe ord of þan sworde: wod in þere eorde*, 2. 335. 1-2. The word was evidently unfamiliar to the O scribe in this sense, and he substitutes *wond in*. For this usage in OE cp. he let his francan *wadan*: *þurh þæs hysses hals*, Battle of Maldon 140-1; *bil eal ðurhwod: fægne flæschoman*. Beow. 1567-8.

WÆDLEN 'the poor', OE *wædla* 'poor'. Her scullen þe *wædlen*: alle iwurden riche, 1. 250. 17-18. The O scribe apparently does not

understand the word at all, for he substitutes *wel donde!* C has also: *weolezen* and *weadlen*, 1. 19. 7. This line is defective in O, only the letters *lde* remaining at the end, from which no conclusion can be drawn.

WÆL-KEMPE 'fighter, warrior', OE *wæl* 'slaughter; the slain', and *cempa* 'warrior'. Antigonus mid his weapmen: and mid his *wæl-kempen*, 1. 25. 2; O *gode kniþtes*, also 1. 93. 6. he wæs a *wæl-kempe*, 2. 577. 24; O a *bald kempe*. *wihte wæl-kempen*. C 2. 33. 22; the line is omitted in O.

WAKIEN, OE *wācien* 'to become weak; to fail': þa ældede þe king and *wakede* an adelan, 1. 124. 21-2; O and *failede* his mihte.

WEGEN 'to carry, bear, to wear'; used of bearing arms, dress, etc. OE *wegan* in same sense, cp. *rincas randas wægon*, *Gen.* 2049; on ðam hrægle ðe he on his breostum *wæg*, *Cur. Past.* Sweet 77. 15. C has: þer wes moni bald scalc: þe sceld *weiden* on sculdre, 2. 379. 2-4; O *sweynde*.

Note the change from a strong to a weak conjugation. The strong pret. occurs in *heo iuēgen* heore wepnen, C 3. 91. 12, which O omits.

WEOP 'lamentation, weeping', OE *wop*.

nes næuere na mon iboren:

.
.

ne swa hærd iheorted

þe iherde þesne weop, 2. 75. 12-13; O *þane cri*.

WEORED 'troop, body of men; pack (of wolves)'; OE *werod*, etc. 'troop'.

O avoids this old word, and substitutes others:

Hi be-com in a bæch: þer he bale funde

vppen ane weorede of *wlfen awedde*, 1. 110. 5-8; O here uses the French word—one *route*. See also under **HIRED**. For mid his *wored strence* 1. 22. 19, O writes *cunnes ginne*. *Bruttene weored*, 2. 412. 17, O writes *Bruttene ferde*; 1. 184. 11, which contains the word, is omitted by O.

WI-EAX, -ÆX 'battle axe'. This compound is not recorded for OE in Bosworth-Toller. The word occurs several times in C and at least once in O 3. 8. 6. In 1. 196. 3, and 3. 119. 5, O writes the unpounded *hax* or *ax*; in 1. 286. 19, O substitutes the more general *wepne*; the line in 2. 332. 12, where C has the word, is omitted by O. In 1. 96. 8, and in 1. 67. 3, O substitutes the French *gisarme*. This word occurs in Wace's *Brut*, 11, 417, Vol. II. P. 136.

WINE, as in OE, 'friend'. This ancient English word occurs many times in C, but never in O, the scribe of which seems to be quite unacquainted with it, since he either makes a shot at its meaning, or leaves out the line which contains it. Wreken he wolde his teonen: and Turnus his *wine* leoue, 1. 74. 5-6; O wreken he wolde his teonen: of Turnus his deape. Mi deore *wine*, 1. 97. 9; O mi *louerd* deore: line 17. p. 389. vol. I containing the same word is omitted by O. alesen his leofue *wines*, 1. 390. 7; O alesen *mannescunde*. menden heoren *wines*, 1. 336. 6; O *cnihtes*. In Vol. II the following lines in C containing the word are omitted by O: 26. 5; 187. 5 (*wines*); 553. 20. The phrase *wines* deore, 3. 87. 20, appears as *cnihtes* deore in O.

WINE-MÆG, as in OE, 'friend and kinsman', a typical OE poetical word, occurs fairly frequently in C but never in O. ure *wine-mæies*, 1. 248. 22; O *gode cnihtes*; the line containing the word is usually omitted by O, e.g. 2. 167. 21; 2. 314. 5; 2. 455. 14.

WISE, also OE 'wise, manner, guise'. For this old Germanic word O substitutes the French form of the same word: an almes monnes *wisen*, 2. 400. 18; O in pore men *guyse*.

WITENE-IMOT, OE *witena gemot*

þat hustinge wes god: hit wes *witene-imot*, 2. 57. 1-2; the half-lines are omitted by O.

WUNSELE, written for *wīnsele* 'wine-hall, banqueting hall', a word which occurs at least three times in Beowulf: þæt hie ær to fela micles in þæm *win-sele* wæl deað fornam, 694-5; also 771, and 2456. C has: her wit scullen wel wrecken: unker *wine-mæies* bitwinnen his *wunseles*, 2. 314. 3-6; O and þis *lond* awinne. þa wunede ich on bure: on *wunsele* mine, 2. 233. 21-2, which O omits. It is worth noting that *bur* and *winsele* are also used in the same connexion in Beow. 2455-7: gesyhd sorg-cearig on his suna bure *wīn-sele* westne, wind gereste. reote berofene.

ŪDE, OE *ȳd* 'wave'. This essentially poetical word may have occurred once in O in 3. 226. 8-10. C has:

Cadwadlan to scipen com: and seh ford mid *uđen*.

and seilede after *ude*. In the first line O reads . . d . . þe, which may be for *mid uþe*; in the second instance O substitutes *wilde see*. Again in 1. 55. 20, where C has (Arður) bah ford mid *uðes*, O writes wende ford in *wilde see*. For liden mid þan *uđen*, 1. 57. 12, O has passi ouer *bieres*; likewise in 3. 121. 6-7, C has: þa wit i sæ comen: þa *vðen* me hire binomen, but O substitutes þe

beares. For *vden* þer urnen 2. 74. 23; O writes *wazes* þer arne: streme þar vrne.

his men þe hine þer brohte: alse þe king hehte.

leten þenne bat buzen: forð mis þan *vden*, 2. 580. 4-7; O *watere*.

C has *vden* also in 1. 398. 23; 2. 455. 2, but the lines do not occur in O, nor does ich isæh *vden* i þere sæ driuen, 3. 121. 2-3. The word is associated in OE poetry with an atmosphere of romance; cp. for instance:

sæ-genga for,
fleat famig-heals, for ofer *yde*,
bunden stefna ofer brim-streamas, Beow. 1908-10.

B. FRENCH WORDS IN LATER TEXT (OTHO)

The following list is intended (a) chiefly to exhibit those French words which O substitutes for others of English (or Scandinavian) origin occurring in C text. It contains, however, also (b) those used by O which do not render any specific words in C; and (c) French words which are found in both texts.

Each of the (a) words is followed by the English word or words which it replaces, and should be looked up under this in List A.

(b) words are included in the alphabetical order in List A, with illustrations and references, and they are here entered without any further indication, see for instance, *contré*.

Words of group (c) have the words '(and C)' added after each. References to these will be found in the List of French and Latin Words in Caligula Text to be included in a subsequent article.

ABBAYE(s), <i>hæp, muneclif</i>	CATEL, <i>æhte</i> , (and C)
ACHAPED, see ASCAPEDE	CHANGEDE, <i>twinen</i>
ADMIRALE (and C)	CHAPEL, <i>chircche</i>
ALASKI, <i>lutlien</i>	CHEISIL (and C)
ANUED, <i>un-ede</i>	CHEUETAINE, <i>here-toze</i>
AMPULLE (and C)	CONSEIL, <i>husting</i>
ASCAPEDE, <i>at-breken, drazen</i> , (and C)	CONTRE
ASPIDÉ, <i>hozien</i>	COUPE, <i>bolle</i>
ATYR	CRI, <i>grure, lude, rop, weop</i>
BARUN, <i>beorne</i>	CRUNE, <i>kinehelm</i> (and C)
BI-TRAIE, <i>swiken</i>	CRUNEDEN (and C)
CANELE (and C)	DELAIE
	DEOL(FUL), <i>ladliche</i>

<p> DUC (and C) EYR, <i>bærnles</i> FAILEDE, <i>wakien</i> FAULSEDE, <i>scænen</i> FOL, <i>sot</i> FOLIE, <i>sotscipe</i> GILE, <i>swiken, uuel</i> GISARME, <i>æx, wi-æx</i> GRACE, <i>milce</i> GRANTI, <i>granede, zetten</i> GUYSE, <i>wise</i> HARSUN, <i>exle</i> HONURE HOSTAGE, <i>gisel</i> LATIMER (and C) LEGAT (and C) LETTRE, <i>boc-runen</i> MACHUNES (and C) MANERE, <i>þus</i> MESSAGERE, <i>erendrake</i> MONTAINE (C) NONNERIE, <i>munstre</i> PAIDE, <i>bi-luuien, zetten, heren</i> PAIS, <i>frid</i> (2) PAISING, <i>husting</i>; PAISI (vb.), <i>sehtnien</i> PARC, <i>frid</i> (1) PASSI, <i>liden</i> </p>	<p> PENSILES, <i>here-mærken</i> PORE, <i>hæne</i> PORSES, <i>bæizes</i> PORCH (C <i>porz</i>) PRISUN, <i>quarcerne</i> PROCESSION (and C) PUINDEN (and C) PURPRES (and C) RICHE, <i>madmes</i> (and C) ROUTE, <i>hired, weored</i> SARUI, <i>heren, græiden, þeinen</i> (and C) SCAMOINE (and C) SCAPIE, <i>atwindan; quecchen</i> SEINE, <i>burne</i> SENATURS (and C) SERUICE, <i>seruinge</i> SIRE (and C) I-SOFFRED, <i>bidan</i> SPIARES, <i>hauweres</i> STRIF, <i>flit</i> TOUR, <i>quarcern</i> TRESUR, <i>æhte</i> TRUAGE, <i>gael, zeld</i> TUMBE, <i>tunne</i> VRINAL, <i>glas-fæt</i> USI, <i>USEDE, feren; spelien</i> </p>
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THE ORIGINAL DIPHTHONGS IN HITTITE

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[See the introductory paragraph]

The development of the original diphthongs in Hittite has seemed to be a peculiarly difficult problem; but evidence has gradually accumulated¹ until something like a system has emerged. We may now say that all the original short diphthongs appear in Hittite as monophthongs, whereas the original long diphthongs retain their diphthongal character. It is not always possible to distinguish with certainty between the several diphthongs; but it will promote clearness if I treat them separately, as far as possible.

Primitive Indo-Hittite^{1a} *ai* (*ai*) appears in the nominative plural neuter of the pronominal declension (*kue* 'quae', *ke* 'haec', *ape* 'illa', *i*, *še* 'ea', *te ne* 'et ea', *udne* 'countries') and in the medial ending *-ti*, which corresponds with Greek *-ται* and Sanskrit *-te* (op. cit. 144). Probably another example is afforded by the adjective *idaluš* 'bad', which I would connect with Gk. *αἶθαλος* 'smoky flame', *αἶθαλόω* 'soil with soot', passive 'be laid waste by fire', Old Saxon *īdal*, *īdil*, Old English *īdel*, Old High German *ītal* 'idle'. The variation in orthography (*e:i*) will be discussed below.

Original *ai* is to be assumed also for the dative-locative infinitives, such as *tiyanna* 'to go', *arnuwanna* 'to bring', *kunanna* 'to strike.' Indo-European shows many infinitives with original final *ai* (*λῦσαι*, *λύεσθαι*, *δοῦναι*, *δομεναι*, Lat. *agī*, *amārī*, Skt. *-aje*, *jīvase*, *etave*, *dāmane*, etc.). We need not here enter into the question whether these forms are to be called datives or locatives; the Greek evidence at any rate shows that such infinitives ended in *ai*, and so we must assume that ending rather than *ei* as the basis of our Hittite forms. We find also an infinitive in *anni* (*idalawanni*, HUL-*anni* 'to harm'), which shows the anteconsonantal form of the suffix, while *-anna* originated in the loss of *i* from final

¹ See especially LANG. 5. 139-46.

^{1a} I propose to use this term (abbreviated IH) for the assumed common ancestor of Indo-European and Hittite. The term Pre-Indo-European is needed in another sense.

ai before a word beginning with *a* (cf. *hatranzi* 'they write' < **hatra-yanzi*, *šarkanteš* < **šarkanteyeš*, plural of *šarkantiš*).² Apparently *i* was regularly lost also before *e* (cf. *hatraizzi* < **hatrayezzi*).

From the point of view of Hittite grammar these infinitives in *anni* or *anna* are dative-locatives from verbal nouns in *-tar* (e.g. **idalawatar*); and so it may be argued that the dative-locative of other consonant stems (e.g. *weteni*: *watar* 'water', *humanti*: *humanza* 'all', *happari*: *happar* 'business transaction', *nepiši*: *nepiš* 'sky', *takni*: *tegan* 'ground') are also to be derived from forms ending in *ai*. There are, however, two other possibilities to be reckoned with. The final *i* may correspond with the IE locative ending *i*, and the fact that *i* is almost always written in these words, whereas *-anna* is the common infinitive ending, favors that hypothesis. There are, however, a few such forms as *takna* 'on the ground',³ and they suggest that a diphthongal ending contributed to the dative-locative of the Hittite consonant stems. Many scholars will prefer to assume that this was a dative in *ei* (cf. Cyprian Διφει-, Oscan *medīkef*) rather than in *ai*.

However this may be, original *ei* appears in the radical syllable of a number of words. The clearest case is *kitta* 'he lies': Gk. *κεῖται*. Almost equally certain is the identity of *gimmanza* 'winter' (stem *gimmant-*) with Skt. *hemantas*, which represents a transfer of the word to the *o*-declension. Under these circumstances it is extremely probable that the Hittite radical vowel has the same grade as the Sanskrit, although one must admit the possibility that *i* here stands for IH *i*.

The following etymologies are more doubtful. The interjection *ehu* 'up! come!' is probably to be analyzed as *e* = Lat. *ē* 'go' and a particle *hu*, whose etymology remains obscure.

I know the verb *lipanzi* only in the military oath (*Keilschrifttexte aus Boghazköi* 6. 34. 1. 29, 2. 20). Both passages have been treated by Friedrich, *Zeitschrift für Assyriologie* NF 1. 162-165, 176-179, and by Götze, *Madduwattaš* 71 ff. I reprint and translate the former passage, since I understand it somewhat differently. (29) *har-nam-mar I.NA QA.TI.ŠÚ.NU* da-a-i na-at li-pa-a-an-zi (30) nu KI.MIN ki-i-wa ku-it Ū.UL-wa har-nam-mar (31) nu ki-i har-nam-mar ma-ah-ha-an te-pu da-an-zi (32) na-at iš-nu-u-ri im-mi-ya-an-zi nu iš-nu-u-ra-an (33) UD 1 KAM ti-an-zi na-áš pu-ut-ki-i-e-it-ta (34) ku-iš-kán ku-u-uš-ša NI.IŠ DINGIR. MEŠ šar-ri-iz-zi. . . (38) na-áš-kán i-na-na-áš še-ir ar-ha par-ši-ya-ad-da-ru. 'He puts leaven in their hands,

² See LANG. 5. 9, 144 f.

³ See LANG. 5. 139-46.

and they spread it on; and he says (KI.MIN 'ditto'): "As they take a little from this leaven, which is no (longer) leaven, and mix it with dough,⁴ and set the dough aside for one day, and it ferments; (just so) whoever breaks these oaths of the gods . . . , let him be torn into bits by colic(?)".⁵ The other passage begins: (19) nu-uš-ma-áš BULUG BAPPIRI.NA.QA.TI.ŠU.NU da-a-i (20) na-at li-ip-pa-an-zi, 'He puts malt in their hands, and they spread it on.' If my interpretation is correct, *lip-* 'smear, spread (a sticky substance) on' must be identical with IE **leip-* 'smear' (Skt. *limpati*, *lepayati*, etc.). It is not certain, however, whether we should assume the full grade with *ei* or the nil-grade with *i*.

In the Yale Tablet (TAPA, 58. 5-31) the sacrificer is elaborately bound with wool, and so he spends the night. (1. 22) ma-a-an lu-uk-kāt-ta na-áš-ta A. NA EN. ZÚR (23) hu-u-ma-an-da-zi-ya^{siG} a-an-ta-ra-an^{siG} mi-da-an-na (24) ar-ha pí-hi-šá-an-zi, 'when day dawns, then even from every (part) of the sacrificer they take off the woolen *andaraš* and the woolen *midaš*'. The verb *pihiš* may consist of the verbal prefix *pe-* and the root **bheid-* of Skt. *bhinadmi*, *bhedāmi* 'split', Lat. *findo*, etc.⁶ The change of final *d* of the root to *š* may have been regular in the third sing. (**-hešzi* < **bheid-ti*). I find a parallel in *šešzi* 'he rests, sleeps', and *šaštaš*: Lithuanian *sėsti* 'to take a seat' and *sostas* 'chair'. I assume that the phonetic law yielded **šešti* in the third sing., but that the analogy of other verbs changed this to *šešzi*. Then the root-final *š* spread from this form and the third sing. preterit *šešta* through the rest of the paradigm, whereas in Lith. all parts of the verb except the infinitive retained the radical *d* (e.g. *sėdu* 'I take a seat'). Some may prefer, as I formerly did⁷, to see in *pihišanzi* the root-form **bhei-*, which appears in Old High German *bīhal* 'axe', etc. One cannot be sure whether *pihišanzi* contains the full grade of the root or the reduced grade, which would be regular in the third pl.

Hittite *tekkušami* 'I point out', *tekkuššešta* 'he showed', *tekkuš(ša)mi-* 'prove'⁸ may be connected with IE **deik-* 'show' on the assumption that *uš(ša)* is a suffix or two suffixes. One naturally thinks of the reduced grade of the perfect participial suffix in Oscan *dicust*, Skt. *viduṣī*, Gk.

⁴ For this meaning, see *Transactions of the American Philological Association* 58. 12. 7-9.

⁵ See LANG. 4. 123 f.

⁶ For Hittite *h* = *bh* initial, see LANG. 3. 109-22.

⁷ LANG. 4. 159.

⁸ See Friedrich, ZA NF 1. 16, 143; Götze, *Hattušiliš* 106.

iðvîa, etc. I have tried to show⁹ that Hittite substituted *uzzi* (<*utî*) for *usî* in the feminine, but even so the suffix form *us* may have survived in the verbal noun or adjective from which our verb was derived.

A defective pronoun of the third person shows in the sing. a gen. *edaš*, dat.-loc. *edani*, abl. *etez*, and in the pl. a dat. *edaš*. One can scarcely separate this from the Skt. pronominal stem *eta-* 'this'. Since Hittite shows¹⁰ that the IE pronoun **to-* is a conglomerate of a sentence connective and the pronoun which appears in Skt. *asya* 'eius', the current belief that *eta-* contains the pronominal *ta-* in a deictic sense is no longer attractive. It is much more likely to be an extension of the demonstrative stem ***ei-*, ***oi-*, similar to those seen in Cyprian *oîfos* 'alone', Old Persian *aiva* 'one', Old Lat. *oînos* 'one', Middle High German *ein*, *einer* 'that', Skt. *enam* 'him', etc. In view of the forms just cited and others in the IE languages it is likely that we should assume IH ***oit-* as the basis of our Hittite pronoun.¹¹

The enclitic acc.-dat. pronoun of the third person is *-še*,¹² which should correspond with Gk. *oi*, Avestan *he*, *še*, Old Persian *šaiy*. One of the two enclitic forms of the second personal pronoun is *-ta*, which is the form that ***toi* would take before a word beginning with *a* or *e*. The equivalent *-tu* and the first personal *-mu* owe their vowel to forms of the independent pronouns, *tuk* 'te', *uk* 'ego', *ammuk* 'ego, me, mihi'.

Original ***moi*, ***toi*, and ***soi*, in their genitival value, gave rise to the enclitic possessives, whose declension is as follows (as far as it is known):

Nom. personal	-miš	-tiš	-šeš, -šiš
acc. personal	-min	-tin	-šin, -šan
nom.-acc. neut.	-met, -mit		-šet
gen.	-maš	-taš	-šaš
dat.-loc.	-mi	-ti	-ši
nom. pl.	-meš		
acc. pl.			-šuš

⁹ LANG. 4. 230.

¹⁰ See *Journal of the American Oriental Society* 47. 174-84.

¹¹ Another possibility is that we should equate the Hittite genitive with Skt. *atas*, IE **etos* 'hence'. If so the abl. *etez* is a contamination of this with the ablative ending *ez* of other pronouns. From the genitive and ablative the *t* must have spread to other cases. The chief reason for preferring the theory stated above is that the declension of *damaiš* 'other' indicates a Hittite stem *ai-* along side of *et-*; see below p. 32.

¹² Commonly written *-ši*, but *-še* occurs in 2 *Boghazköi-Texte in Umschrift* 8 = *Keilschrift-Urkunden aus Boghazköi* 1. 16. 2. 32.

That these pronouns are diphthongal stems rather than *i*-stems is shown by the frequent orthography with *e*; by *-šan*, which is an echo of **-ša* (cf. *-ta*) beside *-ši* (*-še*) in the indeclinable enclitic; and the genitive *-maš*, etc., which represents the regular development from **-mojos*, but would be inexplicable from an *i*-stem. I cannot explain acc. pl. *-šuš* on the basis of an *i*-stem or an *oi*-stem; probably the forms just discussed induced a partial transfer to the *a*-declension.

While the IE languages show nothing precisely parallel to these enclitic possessives, we see very clearly their starting point in such phrases as *τέκνον μοι* 'my child', and Lat. *gnate mi* 'my son'. A close parallel, as far as form is concerned, is presented by the Old Lat. genitives *mīs* and *līs*.¹³

In some of the forms so far discussed the writing with *i* is constant, as far as has been observed (the middle ending *ti*, the dat.-loc. singular of consonant stems—except as it alternates with *a*, the form proper before *a* and *e*—, *idaluš* 'bad', *kitta* 'he lies', *gimmanza* 'winter', *lipanzi* 'they smear', and *pihišanzi* 'they cut off'), but elsewhere we find *e* written with more or less frequency (the neuter plural of the pronominal declension, *ehu* 'up!', *tekkušā-* 'show', *edaš* 'of him', *-še* 'to him', *miš*, *tiš*, *šeš* 'my, your, his'). We may conclude that all of the short *i*-diphthongs regularly became *e* in Hittite, but, since *i* was frequently written for *e*, the orthography with *i* cannot always be interpreted as proof that we have to do with the *nil*-grade form from original *i*.

We naturally expect the *u*-diphthongs to show a development parallel to that of the *i*-diphthongs; but there is no unequivocal way of writing *o* with cuneiform characters. Original *o*, both long and short, is written *a* in Hittite (cf. *tan* = *τόν*; *kuwat* 'why' = Lat. *quod*; *yukan* 'yoke' = *ζυγόν*; *watar* 'water' = Goth. *watō*, *ῥδωρ*; *dahhi* 'I take': *διδωμι*, Lat. *dō*; *para* 'forth' = *πρό*, Lat. *prō*); and so we might expect to find the short *u*-diphthongs appearing as *a*. As a matter of fact, however, they are always written *u*. I conclude, therefore, that original *ō* had come to be pronounced *a*, while *o* from an original short *u*-diphthong was still retained. We need not assume that the sound was the same as that of original *u*.

The only reasonably certain example of original *au* that I can adduce from Hittite is *huhhaš* 'grandfather' = Lat. *avus*.¹⁴ Certain forms of *au*- 'see' may contain either *au* or *u* (see below, p. 34-5).

¹³ See Sommer, *Handbuch der Lateinischen Laut- und Formenlehre*² 409 f.

¹⁴ See LANG. 4. 163.

Since the signs containing *u* can equally well represent original *eu*, *ou*, or *u*, it is usually impossible to be sure which grade to assume. The facts of IE suggest full grade for *lukkatta* 'day dawns', *lukzi*, *lukkizzi* 'kindles': *λευκός* 'bright', Skt. *rocate* 'shines', Lat. *lūcet* 'shines', etc., whereas *luttaš* and *luttiš* 'window very likely go back to ***lugtos* and ***lugtis*.

On the assumption that ***hks* becomes *hš* I would connect *tuhšzi* 'he takes away', with IE **deuk* plus an *s*-suffix akin to the IE present and aorist *s*-suffixes. The root without *s* appears in *tuhkantiš* 'commander in chief'.¹⁵ Probably *tuhšzi* represents the full grade and *tuhšanzi* the *nil*-grade, while *tuhkantiš* may perfectly well contain *eu*, *ou*, or *u*.¹⁶

Hittite *tuzziš* 'army' is nearly equivalent in meaning to Oscan *touto*, Goth. *biuda* 'people', etc.; but since it contains the suffix *ti*¹⁷, the radical syllable probably has *nil*-grade.

I have held¹⁸ that the syllabic nasals, if followed by a consonant, yielded *un* and *um*. The only evidence of importance for such a development is the personal ending *un* of the first sing. preterit (e.g. *ešun*

I was': *ḫa*, Skt. *āsam*). This is opposed by *anzas* = Goth. *uns* (with an ending from the nominal declension), *kuašk-* iterative-durative beside *kuen-* 'strike', *-ma* 'however' = Thessalian *μα 'δῆ'*¹⁹, *humandan* and other accusatives sing. of consonant stems, and by several other forms. It is clear that the syllabic nasals yielded Hittite *am*, *an* before consonants as well as before vowels.

I would now ascribe the secondary ending *un* to verbs in suffix *neu*; ***ṛneum* (cf. Skt. *ṛṇavam*) yielded Hittite **arnun*, and this induced, on the one hand *ešun*, *kuenun*, etc., (in place of inherited **ešan*, **kuenan*, etc.), and, on the other hand, *daškinun*, *īyanun*, etc. (in place of inherited **daškan*, **īyan*). Then these forms with the ending *nun* induced *arnunun* etc. (for **arnun*) in the causative conjugation.

¹⁵ See Forrer, *Forschungen* 1. 99, 101. Correct my analysis in *American Journal of Semitic Languages* 44. 225, 228.

¹⁶ This etymology is, on the whole, preferable to the connection of *tuhšzi* with Gk. *δεβομαι* which I suggested in *LANG.* 4. 161.

¹⁷ See *LANG.* 4. 229.

¹⁸ *American Journal of Philology* 48. 251 f.

¹⁹ A few years ago I identified (*JAOS* 47. 180 f.) Hittite *-ma* with IE **me* in Skt. *sma*, Aeolic *ᾄμε* **ns-me*, etc. It is now fairly clear that Hittite *a* cannot represent IE *e*, and so I must substitute the etymology given above. Gk. *μῆ* is no doubt full grade beside **mṇ*. I am no longer sure of a connection between these forms and the *me* of *ᾄμε*, etc.

My identification²⁰ of Hittite *išduwari* 'becomes known' with Homeric στεῦται 'he looks as if he will', is not satisfactory in point of vocalism. IH *ey* before a vowel should remain as in *newahhun* 'I renewed': Lat. *novāre* (cf. *neyanzi* 'they turn'). Probably **išdewari* has been contaminated with an equivalent **išduta* = στεῦται.

I cannot cite any probable example of original *ou*; but several words show *u* resulting from contraction of the prefix ***ho* (Hittite *ha-*) with initial *u*; namely *hulali* 'distaff', *hulali* 'winding sheet', *hulaliya-* 'wind', from ***ho* + nil-grade of the root ***uel-* 'wind'.²¹

The Hittite dative-locative sing. usually ends in *i* (from original *o*-stems: *antuhši*, *irmali*; from *i*-stems *šuppi*, *mekki*; from a *u*-stem: *aššawi*; from consonant-stems: *humanti*, *takni*). Aside from the consonant-stem locatives in *i*, IE suggests only diphthongal endings for these cases, and the variant forms in *a* point²² in the same direction. From the *i*-stems there are other types of dative-locative, so that from *šuppiš* 'pure' three forms are quotable: *šuppiya*, *šuppi*, *šuppai*. The first of these can be most easily compared with the dative of Skt. *agniṣ*, namely *agnaye* < **eǵneǵei* or **egneǵai*). Apparently IH *-eǵei* before a word beginning with *a* or *e* yielded *šuppiya*, while the antec consonantal **šuppeye* suffered loss of *y* and contraction yielding **šuppe* (written *šuppi*). The corresponding form from the *u*-stems (Skt. *śatrave*) was *-oyei*, which led to *aššawi* (from *aššuš* 'good') when the next word began with a consonant.²³

As far as I can see the dative-locative *šuppai* must be traced to the locative with lengthened grade of the stem and no suffix.²⁴ IH *-ēi* seems, therefore, to have become Hittite *ai* (see further p. 32 below).

A similar conclusion follows from *i*-stem nominative and accusative forms such as *lingaiš*, *lingain* 'oath'. Holger Pedersen²⁵ has recently pointed out that in the IE parent speech all stem-forms presented two types of inflection, one with lengthened grade in nom. and acc. (e.g.

²⁰ LANG. 4. 4 f.

²¹ See LANG. 4. 164.

²² See LANG. 5. 142-5.

²³ Possibly the ending of *aššawi* is to be identified with that of Vedic *sānavi*, loc. of *sānu* 'back', etc., on the basis of IH *-oyi*. Gk. *ῥῆϊ*, etc. cannot be connected with our Hittite forms.

²⁴ See Brugmann, *Grundriss der Vergleichenden Grammatik der Indogermanischen Sprachen*² 2. 2. 175, and references.

²⁵ *La Cinquième Déclinaison Latine* (Det Kgl. Danske Videnskabernes Selskab, *Historisk-filologiske Meddelelser* 11. 5, 1926), 22-6 and passim. Cf. H. Hirt, *Indogermanische Grammatik* 3. 40, 75 f.

πατήρ, εὐπάτωρ) and one with nil-grade in those cases (e.g. Skt. *sūnus*). From the *i*-stems the less familiar type is illustrated by ἡχώ(ι) 'sound', Skt. *sakhā*, acc. *sakhāyam* 'friend.'²⁶ Our nominative form *lingaiš* thus represents a PIE stem in *ēi* or *ōi*. I am not prepared to say whether the case-ending *s* in these words was inherited or was extended to them by analogy.

Hittite *damaiš* 'alter' is certainly akin to the first part of *dayugaš* 'two-year-old', beside *yugaš* 'yearling', and to *tan* 'iterum'. Since there seems to be no justification for regarding *-maiš* (gen.-*medaš*) as a separate grammatical element, we must analyse the nom. *dam-aiš*, and the gen. *dam-edaš*. Thus the oblique cases of *damaiš* contain the forms of the defective pronoun discussed above (p. 28): *edaš* 'eius', etc. The prior element will then be identical with *tan* 'iterum', but with retention of the original final *m* in the interior of the compound. It follows that *damaiš* 'alter' and *damain* 'alterum' preserve obsolete **aiš* 'is' and **ain* 'eum.' If we were right in tracing *edaš* to IH ***oitos*, it is likely that **aiš* represents ***ōis*. Then **aiš* is related to Lat. *is* as the final syllable of *lingaiš* 'oath' is related to the final syllable of Lat. *ignis*.

There is no doubt that the third sing. *dai* 'he places' comes from an earlier **dēi*. I have suggested²⁷ that the perfect ending *e* contracted with root-final *ē* ***dhē-e* > Hittite **de*; that after final *ē* in other words had become *i* (*šakki* 'he knows' < ***soque*, *dai* 'he takes' < ***dō-e*, etc.), this ending was attached to **de*; and that this **dei* became *dai*. The hypothesis is unsatisfactory for several reasons. It requires us to assume that long after original *ēi* became *ai* secondary *ei* yielded the same result, although original *ei* had become *e* (see above pp. 26-8). This is of course possible, but one wants some evidence. A more serious objection is that, whereas the stem-form in *ai* is far more common in the third class (stems in original *ē* and *ēi*) of the *hi*-conjugation than in those of the second class (stems in original *ā* or *ō*), the hypothesis under discussion nevertheless assumes that *ai* in the third class is always or usually due to analogy, while in the second class it is ascribed to regular phonological processes.

It is much more likely that *dai* 'he places' represents IH ***dhēi*, *dai* 'he takes' IH ***dōi*, and *memai* 'he says' IH ***memnāi* (Gk.

²⁶ I am aware of the opinion that *sakhā* owes its declension to the analogy of the nouns of relationship; but, since we must assume such an *i*-stem declension any way, it is more likely that the nouns of relationship merely operated to retain an inherited peculiarity.

²⁷ LANG. 3. 215-25, especially 223 ff.

μέμνηται, with original *ā*)²⁸. All verbs of the Hittite *hi*-conjugation from roots ending in an original long vowel or long *i*-diphthong show *ai* in the third singular present. Since this conjugation is in general to be identified with the IE perfect tense²⁹, a striking parallel is presented by the perfects of the long-vowel roots in Sanskrit, which show *au* in the first and third sing. (e.g. *dadau*: *dā*- 'give', *dadhau*: *dhā*- 'place', *tasthau*: *sthā*- 'stand').

It is not necessary for our present purpose to decide whether or not the Latin *vī*-perfects are akin to the Sanskrit forms (*papraui*: *-plēvī* 'I have filled'; *jajñau*: *nōvī* 'I know'); whether *au* originated in heavy bases ending in *ēu* (*tasthau*: Skt. *sthāvīras*) or in derivative *eu*-stems with lengthened grade (cf. Skt. *susvāpa*: *svap*- 'sleep'), or whether *au* is historically a locative infinitive of an *i*-stem (*dadau*: the Vedic adjective *dadi*- 'giving', *dadhau*: *dadhi*- 'bestowing', etc.)³⁰. Our Hittite forms can be squared with any of the above theories on the assumption that IH had third singulars ending both in *āu* and in *āi*. IE has lost the latter,³¹ and Skt. generalized the ending *au*, just as it extended the *u*-stem locative ending *au* to the *i*-stems. Hittite employs *ai* frequently in the third sing. as well as in the locative of *i*-stems, but, as we shall see (pp. 34–5), it preserves *au* both in the third sing. and in the locative of the *u*-stems.

In the article referred to above³² I recognized the possibility that the third sing. pret. *naišta* 'he turned, sent' might be directly comparable with the Skt. aorist *anaiṣīt*, but I also thought it possible that the Hittite form was analogical. I am now convinced that either *naišta* (pronounced *naišt*) or the equivalent form *naiš*³³ is to be identified with Vedic

²⁸ Other examples of *m* from *mn* are *tarma(i)*- 'mark off'; Lat. *termino* (LANG. 5¹ 11); *ištamaš*- 'hear'; *ištamanaš* 'ear'; *arrummaš* (<**arrumnaš*), genitive of the infinitive *arrummar* (the genitives like *tiyawwas*: *tiyawwar*—instead of **tiyaunaš*—are analogical); *arkammaš* 'tribute' from Akkadian *ARGAMANNU* (see Götze, *Madduwattaš* 130 f.). See also Ehelolf, *ZA NF* 2. 313 and fn. 6.

²⁹ See Kellogg, *Some Indo-European Coincidences in Hittite* 38 f., 41; Sturtevant, *LANG.* 2. 33 f., 3. 161–8, 215–25.

³⁰ On these problems, see Leumann, *Stolz-Schmalz Lateinische Grammatik*⁵ 334 f., and Hirt, *Indogermanische Grammatik* 4. 268 f.

³¹ In view of Hittite *nai* 'he turns, sends', probably Skt. *nināya*: *nayati* 'leads' stands for earlier **nināi*. Probably other perfects in *-āya* have a similar history; *-au* did not in all cases supplant *-ai* as a perfect ending.

³² LANG. 3. 223.

³³ Since cuneiform characters cannot write two consonants at the end of a word, we must reckon with the possibility that *na-a-iš-ta* and *na-a-iš* are merely alternative orthographies for *naišt*. But if so, we should expect **e-eš* for *e-eš-ta* 'he was', **e-ep* for *e-ep-ta* 'he took', etc. Until such forms are found it is safer to assume that *na-a-iš-ta* and *na-a-iš* are different although equivalent forms.

naiš, whence by analogy classical Skt. *anaiṣīt*. Probably most scholars will assume that IH had the form ***nēist*, with personal ending *t*, and that this became Hittite *naišt* before a pause or when the next word began with a vowel, while final *t* was lost before certain initial consonants. Since, however, the Hittite verb usually stands at the end of a sentence, we should expect the pausa form to prevail; and so it is worth while to remember that there is no conclusive evidence for a personal ending in the third sing. of the *s*-aorist in IE. Possibly we should posit IH and IE **nēis*, and assume that the final *t* of Hittite *naišta*, etc. is due to the analogy of the preterit of the first conjugation.

The above explanation holds, of course, only for verbs which contain original *āi*, whereas many verbs of the third class of the *hi*-conjugation were not originally diphthongal. We must therefore assume that such forms as *daiš* 'he placed' and *daišta* 'you placed' are analogical (*nai: naiš* = *dai: daiš*). In view of the Skt. perfects in *au*, it is likely that the spread of the diphthongs occurred in IH.

The Hittite evidence for the development of the long *u*-diphthongs is scanty but clear. Just as original *ēi* in the locative of certain *i*-stems yields a Hittite dative-locative in *ai*, and as certain *i*-stems show nominatives and accusatives in *aiš* and *ain*, so the *u*-stem *harnu*- 'birth-chair' makes nom. *harnauš*, acc. *harnau* and dat.-loc. *harnau*.³⁴ I do not know of another Hittite *u*-stem that preserves this type of declension; but, since it harmonizes rather closely with the declension of such *i*-stems as *lingaiš*, *lingain*, *lingai*, I see no reason to doubt that it was inherited. Sommer's suggestion that the dissimilarity to other *u*-stems is due to borrowing from another language is not attractive.

A single verb of the *hi*-conjugation presents the diphthong *au* in several of the places which frequently show *ai*. This will be clear from a comparison of the paradigms of *nehhi* 'I send' and *uhhi* 'I see'.

pres. 1 <i>nehhi</i>	<i>uhhi</i>	pret. 1 <i>nehhun</i>	<i>uhhun</i>
2 <i>naitti</i>	<i>autti</i>	2	<i>aušta</i>
3 <i>nai</i>	<i>aušzi</i>	3 <i>naiš</i> , <i>naišta</i>	<i>aušta</i>
1	<i>aummeni</i>	1	<i>aummen</i>
2 <i>naišteni</i>	<i>autteni</i>	2 <i>naišten</i>	
3 <i>neyanzi</i>	<i>uwanzi</i>	3 <i>nair</i>	<i>awer</i>
	imperat. 2 <i>nai</i>	<i>au</i>	
	3 <i>nau</i>	<i>aušdu</i>	
	2 <i>neyaten</i>	<i>aušten</i>	

³⁴ See Sommer and Ehelolf, *Boghazköi-Studien* 10. 4. For the loss of final *n* in the accusative see *AJP* 48. 249 f., and *LANG.* 5. 140 ff.

The two verbs are not entirely parallel. Third sing. *aušzi* and *aušdu* show the influence of the first conjugation. While *nehhi* apparently has *e* from *ē* (IH ***nēhi-*, see LANG 3. 222), the *u* of *uhhi*, *uhhun* must come from *ū*, *u*, or a short *u*-diphthong. Nevertheless a number of the forms of *uhhi* are so close to those of *nehhi* that one is strongly inclined to trace *au* to a long *u*-diphthong.

The etymology of the word is clearly indicated by the *sk*-present *ušk-* (*uškinun* 'I saw', *uškatten* 'see ye', etc.), which corresponds precisely with Skt. *ucchati* 'shines'.³⁵ The forms in *auš-* are therefore to be connected with the long diphthong of Homeric ἤως, Aeolic αῶς, Primitive Gk. **āwōs*.³⁶ I shall not attempt to decide whether the restriction of *š* to certain of the Hittite forms indicates that the *s* of the IE root was originally formative, or whether the Hittite verb lost *s* in certain forms through the analogy of verbs like *nehhi*.

Since the IH ablaut base was ***ayes-* it is possible to trace the vowel of *uhhi* either to ***auhi* with normal grade or to ***uhi* with nil-grade. The third plural *uwanzi* must contain nil-grade, since ***aynti* would yield **awanzi*.

³⁵ On this word and the iterative-durative *uškišk-*, see Götze, *Madd.* 106 ff.

³⁶ See Walde-Pokorny, *Vergleichendes Wörterbuch der Indogermanischen Sprachen* 1. 26 f.

THE ETYMOLOGY OF SANSKRIT *guṇá*

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[The word *guṇa* was originally an adjective 'bovine' from the zero-grade of the base *go-*. It is formed with the secondary suffix *-na-*, and the *-ṇ-* is Prakritic. The adjective is then substantivized in the sense 'bovine sinew', from which the meaning shifts to 'sinew' and the other derived meanings.]

Uhlenbeck, *Etymologisches Wörterbuch der altindischen Sprache*, says s. v. *guṇá* (cf. E. and J. Leumann, *Etymologisches Wörterbuch der Sanskritsprache*, Lief. 1, Heft 1, 1907): '... mit mittelindisch *ṇ* aus *n*, vgl. av. *gaonō* farbe¹, np. *gūn*, farbe, art und weise, afgh. *γūna*, haare am körper, poren, farbe, osset. *γun*, *gun*, haare, farbe des haares. Unsicher.'

The important definitions of *guṇá* as stated by the St. Petersburg Lexicon are: '... der einzelne Faden einer Schnur; Schnur, Strick überhaupt ... Insbesondere, .. Bogensehne ... In der Geometrie, die Sehne ... Saite ... Am Ende eines compositi, .. nach einem Zahlwort: -fach, -plex, -πλος (ursprünglich aus so und so viel Fäden d. i. Theilen bestehend) ... Abtheilung, Art ... Eigenschaft (der wandelbare und daher unwesentliche Theil an den Dingen, im Gegensatz zur Substanz), Eigenthümlichkeit ... Eine gute Eigenschaft, Tugend, Verdienst, Vorzug, hoher Grad von ...'

I propose to derive *guṇá* from the zero-grade stem *gu-* of the noun *gó*, 'ox, cow', on the supposition that *guṇá* is primarily an adjective form meaning 'bovine,' whence 'bovine sinew.'

The stem *gó* shows in declension (1) the strengthened stem *gā(u)*, in the forms *gāús*, *gā'vāu*, *gā'vas*, and with loss of the second element of the diphthong, *gā'm*, *gā's*; and (2) the normal-grade stem *gó* in *gós*, *góbhyām*, *góbhis*, *góbhyas*, *góṣu*; *gávā*, *gáve*, *gávi*, etc. That such forms as *gáve*, *gós* are really based on the normal-grade stem *gó* is guaranteed by *góbhis*, etc., and by the inflection of the word in the related languages. And yet, as far as the forms themselves are concerned, *gáve* and *gós* might

¹ Avestan *gaonō* answers regularly to Skt. **gona*; cf. A. V. W. Jackson, *Avestan Grammar* 1. 18. Late Skt. *goṇa*, 'ox', etc., a Prakritic form from *gó*, with lingual *ṇ* like *guṇá*, may perhaps be noticed in this connection.

equally well be from a stem in *u* (like *dhenáve*, *dhenós*, etc.). And in fact we actually find a stem *gu-* in the compounds *saptágu*, 'possessing seven oxen or cows' (*saptágum*, RV 10.47.6), *sugú*, 'having fine cows' (*sugúh*, RV 1.125.6), *bahugú*, 'rich in cattle,' *śatagvín*, 'possessing or consisting of one hundred cows', and others. The stem form *gu-* is thus well attested in Sanskrit, tho heretofore only as a final member of compounds; see Wackernagel, *Altindische Grammatik* 3. 1.218f. The ablaut series *gu-*, *go-*, *gāu-* is sufficiently regular in aspect to be an inheritance from prehistoric times, as was suggested by Collitz, BB 10.32. It may be a mere accident that no certain correspondent of *gu-* in related languages is found; cf. however Bloomfield's etymology of *πρεσβίς*, AJP 29.78ff., and Brugmann, *Vgl. Gram.*² 2.1.134. But it is also possible that *gu-* was abstracted from forms of *gó* which coincided with regular *u*-stem forms, such as *gós* ('as if from *gu*', Whitney, *Grammar*, §361 c) and *gáve*; that is, on the analogy of *dhenóh*: *dhenú-*, etc. (So de Saussure explained *gu-*, as quoted by Wackernagel 3.1. 219.)

The addition of the secondary suffix *na* to noun or adjective stems to form adjectives is seen in *phalguná*, apparently 'reddish,' and = *phalgú*, *çmaçruná*, 'bearded,' < *çmáçru*, 'beard', *çū'raṇa*, if this means 'heroic', < *çū'ra*, 'hero' (*çū'raṇa* is a *ἄπαξ λεγ.*, epithet of horses, RV 1.163.10); with *vrddhi*-strengthening, *strāṭṇa*, 'woman's', < *strī*, 'woman'; also, from bases recorded only as adverbs, *viṣuṇa*, 'various', < *viṣu-* and perhaps *purāṇá*, 'ancient', < *purā*. If *dróṇa* ['wooden vessel'] comes from *drú*, 'wood,' it has the anomaly of a *guṇa*-strengthening' (Whitney §1223 g).² While the examples are not numerous—I omit some possible but less certain ones, mentioned by Whitney—they are sufficient to demonstrate the existence of the adjectival suffix *na* with the value assumed in the derivation *guṇá* < *gu-* (= *gó*) + *na*. Cf. also *goṇa* 'ox', mentioned in footnote 1.

The lingual *ṇ* of *guṇá* may be regarded as of Prakritic (dialectic) origin, as has been suggested by Uhlenbeck (see above). In most Prakrit dialects *n* regularly becomes *ṇ* in all positions of the word (Pischel, *Grammatik der Prakritsprachen* § 224). It is well known that in the very earliest stages of Indic speech, even in the Rigveda itself, examples of Prakritic phonology are not rare. For examples, see Wackernagel 1. xviii f.; and further, a paper on 'Dialectic Phonology in the Veda' which Professor Edgerton will shortly publish in the volume of Studies in

² The connection of *dróṇa* with *drú* is indicated by Uhlenbeck, and seems extremely probable.

honor of Professor Collitz. The earliest occurrences of *guṇá* are found in post-Rigvedic texts;³ that is, at a time when the assumption of middle-Indic influence is *a fortiori* entirely plausible. The probability of this explanation is increased by the occurrence in late Sanskrit of the word *goṇa* 'ox', mentioned above; it also has lingual *ṇ*, and is obviously of Prakritic character and origin.

The sense-development indicated is: (1) 'bovine', (2) 'bovine sinew', (3) 'sinew', (4) 'bow-string' (later also 'chord of an arc', cf. German *Sehne*), (5) 'strand, cord (of rope)', (6) 'quality', (7) 'virtue', the last four stages being fully attested in Sanskrit. The passage from (1) to (2), involving a shift from adjectival to substantival function, is analogous to that seen in *sāraghá*, 'honey,' from *sarágh* or *sarághā*, 'bee'. Here the derivative noun is shown by its formation to be primarily an adjective. Other examples might readily be given; but the principle is so well established in grammar (see Whitney § 1208) that expatiation on this point seems unnecessary.

The close semantic relationship between the notions 'sinew', 'bow-string' and 'cord' is neatly indicated by Latin *nervus* 'sinew, tendon, nerve, . . . string of a musical instrument, . . . bowstring . . .' (Andrews-Lewis-Short, *Latin Dictionary*); Greek *νεῦρον* 'sinew, tendon [with metaphorical derivatives], cord made of sinew for fastening the head of the arrow to the shaft, . . . also, a bowstring' (Liddell and Scott, *Greek-English Lexicon*); and German *Sehne* '(1) sinew, tendon, nerve, (2) string (of a bow), (3) in geometry, chord' (Flügel, *Deutsch-englisches Wörterbuch*).

The semantic probability of the etymology is supported also by the circumstance that the word *gó* is itself used in the Veda to designate various bovine products, and, in fact, anything derived from an ox or cow, precisely as the word *drú*, 'wood, tree,' is used to designate any article made of wood, such as a wooden cup, an oar, etc. In the Veda the word *gó* itself is used of milk, butter, beef, oxhide, and anything made from it, such as reins, whip-lashes, leather thongs, etc.; and finally, it is used several times of the bow-string. See the St. Petersburg Lexicon, s. v.; Grassmann, *Wörterbuch zum Rigveda*, s. v.; Zimmer, *Altindisches Leben* 228; Macdonell and Keith, *Vedic Index* 234. Zimmer and

³ The earliest case is possibly Tāittiriya Saṃhitā 7. 2. 4. 2, where *guṇá* clearly means 'cord, strand' (as constituent of a rope). It is impossible to say whether this is earlier or later than Atharva Veda 10. 8. 43, where the precise meaning is not clear; it may be the same. These seem to be the only occurrences recorded in the Vedic Saṃhitās.

Macdonell and Keith assume that the bow-string referred to simply by the word *gó* (singular or plural) was made of hide or leather. But they are clearly wrong; the bow-string was made of sinew, as is proved by Atharva-Veda 7.50.9, where the word *snā'van* 'sinew', is used of the bow-string: *dhānuḥ snā'veva nahyata*.

Since, therefore, the word *gó* itself, literally 'ox' or 'cow', means in the Veda 'bow-string', and since the bow-string was demonstrably made of sinew, it is evident that one of the meanings of *gó* was '(bovine) sinew'. My attribution of this meaning to the word *guṇā*, and my assumption that *guṇā* was originally an adjective meaning 'bovine', are thus made yet more plausible.

In other regions than India, numerous primitive peoples are known to have made extensive use of sinew for cord, and especially for bow-strings. A description of the process for making bow-strings generally used among the North American tribes is given by O. T. Mason, 'North American Bows, Arrows and Quivers,' in the *Annual Report of the Smithsonian Institution*, 1893. 645: 'The strip of gristle extending from the head along the back and serving to support the former, and those from the lower part of the legs of deer and other ruminants were selected. These were hung up to dry. For making bowstrings the gristle was shredded with the fingers in fibers as fine as silk in some tribes, but coarse in others. These fibers were twisted into yarn on the thigh by means of the palm of the hand, after the manner of the cobbler . . .' Similarly, S. T. Pope, 'Yahi Archery,' *University of California Publications in Archeology and Anthropology* 13.108. The sinew-backed bow, a weapon of many primitive peoples, may also be mentioned as an indication of the extensive use made of sinew for cord among primitive peoples.

The only rival etymology of the word *guṇā*, so far as I know, is that mentioned doubtfully by Uhlenbeck and Leumann, and quoted by me at the beginning of this paper.⁴ It seems to me very implausible on the face of it. The Avestan *gaonō* and its derivatives in the later Iranian languages seem clearly to have meant primarily 'hair'; see Bartholomae, *Altiranisches Wörterbuch*, s. v. The meaning 'quality' evidently develops secondarily from this meaning, through the (attested) intermediate stage 'color of hair, color', that is, *external aspect*. On the other hand, Sanskrit *guṇā* comes to mean 'quality' through the meaning 'strand of a rope', and so (*internal*) *constituent element*. Both the inherent

⁴ It appears to have been first suggested by Geiger, *Handbuch der Avestasprache* 227 (1879).

probabilities and the actual use of the word in the Veda prove that this is the true semantic development. Since, therefore, the *primary* meanings of the two words are utterly unrelated, the etymology certainly deserves no consideration.⁵

⁵ On several phases of this etymological study, I have received helpful suggestions from Professor Franklin Edgerton.

THE SUBJUNCTIVE IN *LAZARILLO DE TORMES*

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[See the introductory paragraphs]

There is at present a singular lack of materials in the historical development of Spanish syntax from the earliest period to the present time. At best, we possess only studies of isolated phenomena. The main lines of usage remain untouched. If we are to build up a picture of the evolution of syntactical form in Spain, we must have detailed studies of the current usage in each of the periods since the thirteenth century. I am now engaged in an effort to make a survey of sixteenth century syntax. The present study of the subjunctive in *Lazarillo de Tormes* is an example of the type of materials which I am gathering.

Basically, the subjunctive reflects one of two emotions in the speaker or writer: (1) Wish (2) Uncertainty. Out of the first spring all the usages which signify command, approval, pleasure, and the like; out of the second come all the usages which reflect doubt, probability, potentiality, or hypothetical futurity. In the following classification, the conventional divisions are followed. In the treatment of substantive clauses it has seemed desirable to distinguish their grammatical function as well as their emotional category. For the purposes of comparison conditional sentences of all types are studied together. Finally a brief survey of the tenses is given. I have not felt it necessary to cite the several references to Diez, Meyer-Lübke, Bello-Cuervo, or other grammarians who treat of each of the constructions recorded, since the study is meant to serve merely as an illustration of that technique in the gathering of syntactic material which presents a complete exposé of the usage of a given author.¹

¹ Page and line references are to the edition of Strassburg [1912?] (*Bibliotheca romanica* 177). I have, however, collated the text with the critical text of Foulché-Delbosc, Madrid, 1900 (*Bibliotheca hispanica* 3), and accepted the latter's readings in all cases of variance. Examples taken from the additions first printed in the edition of Alcalá, 1554, are indicated by an asterisk. The total frequency of each construction is given in parentheses at the right edge of the page.

SUBJUNCTIVE IN PRINCIPAL CLAUSES

A. The Subjunctive of Wish

1. Wishes

a. Future, expressed with present subjunctive

I. Prayers, addressed to God (21)

17.6: Mi padre (que Dios *perdone*)...19.23: y Dios *te guie*

and 19 other examples

II. Imprecations (3)

31.14: Tal te la *de* Dios34.12: Nuevas malas te *de* Dios51.22: Maldita *sea* ella

In 43.14: maldita tanta medicina, the verb is omitted.

III. Other examples (1)

49.15: *Ansi* me *vengan* los buenos años como es ellob. Present, contrary to fact, expressed with the past subjunctive in *-sse* (1)45.17: ¡O si *supiesses*, moço, que pieça es esta!c. Past, contrary to fact, expressed with the past subjunctive in *-ra* (4)25.36*: adonde *pluguiera* [*read: pluguiera*] a Dios nunca alla llegaramos27.25: ¡quien *estuviera* aquella hora sepultado!28.11: *Pluguiera* a Dios que lo huviera hecho31.7: y *pluguiera* a Dios que me demediara

In general, a wish is introduced without conjunction or adverb (23)

19.23: y Dios *te guie*

and 22 other examples

But the following cases show an introductory word

ansi, in comparisons (2)48.4: y *ansi* El me ayude como ello parece bien49.15: *Ansi* me *vengan* los buenos años como es ello*quien*, referring to first person singular (1)27.25: ¡quien *estuviera* aquella hora sepultado!*si* (1)45.17: ¡O *si* *supiesses*, moço, que pieça es esta!

Relative pronoun, in parenthetical clauses (3)

17.5: Mi padre (*que* Dios perdone)...31.21: *al que* Dios perdone33.5: en tal affliccion *qual* plega al Señor librar della a todo fiel christiano

It should be remarked that in wishes expressed with *pluguiera a Dios* *que* the real wish is expressed by the verb of the dependent clause, the phrase *pluguiera a Dios que* being equivalent to *oxala (oxala que)*, which does not occur in the *Lazarillo*. In the examples found in the text, it is interesting to note that the pluperfect tense (28.11) denotes a time anterior to the time of *pluguiera*, while the simple tense denotes a time coincident with that of *pluguiera*.

Similarly with the expression: *Plega a Dios que* no me muerda (38.24), the real wish is conveyed by the subordinate verb *muerda*.

In 54.6: Y no es buena manera de saludar un hombre a otro, dixе yo, dezirle *que* le mantenga Dios?, the *que* is dependent on the verb *dezirle* and does not introduce the wish as such.

2. Commands

a. First person plural (Hortative) (7)

18.25: No nos *maravillemos*

also 25.16*; 29.4; 44.26; 51.19; 51.27; 62.15

Before enclitic *nos*, the final *s* of the verb is dropped (1)29.4: *Acojamonos* a la posada

The present subjunctive may be replaced by *vamos a* with infinitive (1)

62.15: *Vamos todos a suplicalle*²

b. Second person

I. Negative (5)

30.31: y no *hagays* [*read: hagas?*] sino golosinar

also 56.29; 60.33; 69.18; 70.4

The constructions

60.35: te pido, no *dissimules*61.2: te suplico yo, Señor, no lo *dissimules*

are probably examples of the omission of *que* before an object clause; they illustrate how easy is the transition from direct command to a subordination of the thought.

² The *vamos* of this construction is, of course, a subjunctive, from Lat. *vadamus*.

II. Affirmative, with an oath (1)

33.16: por vuestra vida *veays* si en essas . . . hay alguna que le haga

The use of the subjunctive instead of an imperative, common in early Spanish, survives in the sixteenth century in such stereotyped phrases with an oath.

c. Third person

I. V. M. (Vuestra merced) as subject (7)

17.2: Pues *sepa* V. M.

also 20.13; 42.34; 44.30; 48.8; 49.7; 52.19

II. *él, ella*, etc. or a noun as subject (6)

15.25: mas *pregunten* a su merced si le pesa . . .

also 61.3; 61.5; 61.6; 61.9; 64.1

This type of command is not introduced by *que* in the *Lazarillo*.

B. The Subjunctive of Uncertainty

1. Potential, referring to an action or state that is contrary to fact, regularly the past in *-ra*

a. In the conclusion of a conditional sentence (5)

16.1: ¿que *hiziera*, si fuera verdad?

21.3: si con mi sotileza y buenas mañas no me supiera remediar, muchas veces me *finara* de hambre

27.28: si al ruido no acudieran, pienso no me *dexara* con la vida

31.2: si por malos de mis pecados me desmandara a mas de mi tassa, me *costara* caro

34.9: si no tuviera a tan buen recaudo esta arca, yo *dixera* que me havian tomado della panes

In all these cases the action or state is contrary to fact in the past and would now be expressed by the conditional perfect or the pluperfect subjunctive with *hubiera* and past participle.

b. In sentences implying a condition (15)

23.31: ¡Mira, quien *pensara* de un muchacho tan pequeño tal ruynidad!

28.8: con solo apretar los dientes, se me *quedaran* en casa, y con ser de aquel malvado, por ventura lo *retuviera* mejor mi estomago . . . y no pareciendo ellas *pudiera* negar la demanda

30.25: aunque dello no me aprovechara, con la vista dello me *consolara*

31.21: y aunque algo huviera, no *pudiera* cegalle

33.4: y a baxar otro punto, no *sonara* Lazaro ni se *oyera* en el mundo

- 34.19: y halle su cuenta mas verdadera que yo *quisiera*
 37.15: quien quisiera propiamente della hablar mas coraças viejas de
 otro tiempo que no arcaz la *llamara*
 42.15: Y yo le di mas larga cuenta que *quisiera*
 48.8: nunca a el yo *hubiera* de venir³
 49.12: mejor que un galgo suyo lo *hiziera*
 50.28: Aqui *viera*, quien vello pudiera, la abstinencia de mi casa
 53.21: mas de quantas vezes yo se lo quitava primero, no *fuera* malo
 comedirse el alguna

In these examples again, the *-ra* subjunctive regularly refers to past time and the thought would now be expressed by the conditional perfect. The form used in the *Lazarillo* to express the potential, contrary to fact in present time, is always the conditional, whether in the conclusion of a conditional sentence:

- 15.15: si assi no fuesse, muy pocos *escribirian* para uno solo
 or in a sentence implying a condition:

- 15.4: pues *podria* ser que alguno que las lea halle algo que le agrade⁴
 and 14 other examples

For further discussion of the *-ra* subjunctive, see below under Tenses.

The *Lazarillo* offers no example of the subjunctive of uncertainty after *acaso*, *tal vez*, etc., nor of the alternative clause of concession of the type: *sea lo que fuere*.

THE SUBJUNCTIVE IN SUBORDINATE CLAUSES

A. The Subjunctive of Wish

1. Noun clauses

a. Object of a verb expressing

I. Wish, command, approval, permission, request, etc. (48)

<i>acordar</i> : 50.22	(1)
<i>declarar</i> : 60.11	(3)
<i>dessear</i> : 48.28; 51.12	(3)
<i>dexar</i> : 52.35	(1)
<i>dezir</i> : 60.6; 64.20*; 64.23*; 67.20	(4)
<i>encomendar</i> : 48.5	(1)

³ I have interpreted this as equivalent to modern 'Nunca a él yo habría debido venir'. It is possible that the meaning is '¡Ojalá que nunca a él yo hubiera tenido que venir!', in which case it should be classified under Wishes.

⁴ The time is revealed as present by the tense of the dependent clause.

<i>escribir</i> : 16.10	(2)
<i>mandar</i> : 19.28; 21.36; 26.13; 60.21; 62.11; 62.12; 64.28*	(8)
<i>pedir</i> : 64.27*	(1)
<i>permitir</i> : 62.20	(1)
<i>preguntar</i> : 60.25	(1)
<i>querer</i> : 20.35; 41.27; 50.11; 50.12; 50.20; 55.27	(8)
<i>responder</i> : 64.37*	(1)
<i>rogar</i> : 19.14; 32.9; 32.13; 32.15; 59.27	(7)
<i>sufrir</i> : 54.15; 54.17	(2)
<i>suplicar</i> : 16.17; 61.35; 61.37; 62.3; 62.13; 62.17; 62.32	(7)
<i>tener por bien</i> : 15.2	(2)

A. Exceptions (4)

- 18.18: Quiso nuestra fortuna que la conversacion del Zaide...*llego a*
oydos del mayordomo
- 33.29: quiso Dios no *miro* en la oblada
- 35.14: quiso Dios que aun en esto me *fue* bien
- 39.9: Quisieron mis hados...que una noche...la llave se me *puso*
en la boca...

In all these examples the preterite of *querer* has acquired the force of a decision, so that the subordinate clause is considered as a resultant fact. With this usage, compare

- 50.20: quiso mi mala fortuna...que en aquella trabajada y vergonçosa
vivienda no *durasse*

where the subordinate clause is felt as reflecting the desire. A similar construction is found in

- 35.32: mas no quiso mi desdicha, despertando a este lazerado de mi amo
y poniendole mas diligencia de la que el de suyo se tenia...
agora cerrando los agujeros del arca, *cerrasse* la puerta a mi
consuelo y la *abriese* a mis trabajos

where it is necessary to supply 'quiso mi desdicha que mi amo' after 'agora'.

In the sentence

- 41.23: yo pensava y aun desseava que alli me *queria* cargar de lo que se
vendia

the force of *pensar* predominates; 'desire' is absorbed in 'belief'.

II. Emotion (1)

- 33.16: temo mi señor me *açote*

A. Exceptions

(4)

- 17.15: Espero en Dios que *esta* en la gloria
 35.8: agujeros por do sospechava *havian entrado*
 48.26: temíame no *acceptaria* el convite
 52.30: me rezelava que nos le *havian* de meter en casa

This use of the indicative is common at all periods in Spanish; 'hope', 'fear', and other emotions become so strong that they amount to a 'conviction', with the result that the dependent clause is treated as a fact.

III. Asseverations and oaths

(5)

- 48.17: yo te prometo...no *quede* en ella
 53.30: mas votote a Dios...que otra vez que venga, me *sepa* yo entrar en una casa
 55.4: Por Dios, si con el topasse, muy gran su privado pienso que *fuesse* y que mil servicios le *hiciesse*
 65.8*: pues por vida del licenciado Paschasio Gomez que a su costa se *saquen* mas de diez captivos

The emotional quality of the subjunctive in Spanish is nowhere more clearly revealed than in this use after expressions of strong asseveration. It should be observed that if the statement thus strongly presented is a fact in present or past time, the indicative is used:

- 43.22: Por mi vida que *parece* este buen pan
 56.37: Por Dios que *esta* bueno el negocio
 49.14: Por Dios que me *ha sabido* como si no huviera hoy comido bocado

b. Subject of impersonal expressions of

I. Wish, command, approval, etc.

(4)

- 33.37: mas no estava en mi dicha que me *durasse*
 51.32: esta constituydo en mi triste fortuna que ningun gozo me *venga* sin çoçobra
 53.34: ni es justo...se *descuyde*
 66.14*: fue rogado mucho del concejo y clerigos del lugar les *dexasse* alli aquella sancta cruz

II. Emotion

(7)

- 16.4: no me pesara que *hayan* parte y se *huelguen* con ello todos los que en ella algun gusto hallaren, y *vean* que vive un hombre con tantas fortunas

- 25.36*: adonde pluguiere [*read: pluguiera*] a Dios nunca alli *llegaramos*
 28.11: Pluguiera a Dios que lo *hubiera hecho*
 31.7: y pluguiera a Dios que me *demediara*
 38.24: Plega a Dios que no me *muerda*

A. Exception (1)

- 40.18: placera a Dios no *sera nada*

The indicative is frequent after *placer*, unless *placer* is itself in the subjunctive.

c. In apposition with a noun, in clauses expressing

I. Wish, command, approval, etc. (8)

- 18.35: a mi madre pusieron pena por justicia... que en casa del sobre-
 dicho Comendador no *entrasse* ni al lastimado Zayde en la
 suya *acogiesse*
 27.20: fueron causa que el hecho y golosina se *manifestasse* y lo suyo
fuesse vuelto a su dueño
 50.24: con pregon que el que... *topassen*, *fuesse* punido con açotes
 55.36: el les dio muy buena respuesta que... a la tarde *volviessen*
 65.27*: hizo señal que *viniesen* adorar la cruz
 66.25*: haziendome señal que *callasse*

II. Emotion (3)

- 38.33: Yo huve miedo que... no me *topasse*
 39.6: sin recelo que el bruxo de mi amo *cayesse* con ella
 49.27: Contemplava yo... mi desastre que... *viniesse* a topar con quien
 ...no me mantuviesse

III. Asseveration (1)

- 66.29*: me tomo juramento que no *descubriesse* el milagro

Modern usage requires a preposition to connect this type of clause with the substantive on which it depends. Logically, the subordinate clause is the object of the preceding expression; 'Yo huve miedo' is equivalent to 'Yo temi'.

d. After a preposition, in an adverbial phrase, modifying an expression of

I. Wish, command, approval, etc. (6)

- 15.17: quieren... ser recompensados, no con dineros, mas con que *vean*
 y *lean* sus obras y... se las *alaben*

59.36: comienza su sermon y a animar la gente a que no *quedassen* sin tanto bien

69.34: y havia por bien de que ella *entrasse* y *saltiesse* de noche y de dia

2. Adjective clauses (Relative)

a. Purpose

(1)

26.11: diome un pedaço de longaniza que le *assasse*

Clauses of purpose are the only relative clauses which belong under the subjunctive of wish; all others are included under the subjunctive of uncertainty.

3. Adverbial clauses

a. Characteristic

39.21: pensando... darle tal garrotazo que la *matasse* (1)

b. Intended result

(3)

57.27: hazia mis negocios tan al revés que... en mi no *fuesse* así mas que mi amo me *dexasse* y *huyesse* de mi

c. Purpose

I. With *porque*

(13)

16.12: porque se *tenga* entera noticia de mi persona y tambien porque *consideren* los que heredaron nobles estados quan poco se les deve

and 11 other examples

II. With *para que*

(7)

44.8: Moço, parate allí... para que la *sepas* hazer
also 56.26; 62.33; 62.34; 64.6*; 64.21*; 64.22*

III. With *que*

(3)

20.25; para las que eran mal casadas, que sus maridos las *quisiessen* bien

also 51.34; 52.15

The distinction between clauses of characteristic, intended result, and purpose is a slender one. The present classification has included under characteristic clauses those in which there is a *qualitative* limitation of the main action; under clauses of intended result, those in which there is a *quantitative* limitation of the main action; and under purpose, those in which there is *no* qualification of the main action. In characteristic clauses it is precisely this qualification which reveals that the subordi-

nate clause is an expression of wish on the part of the speaker or writer, and not an expression of uncertainty. In clauses of intended result and of purpose the element of wish is obvious. The greater frequency of *porque* over *para que* is not infrequent in writers of the sixteenth century.

A special case is:

15.11: Y esto, para que ninguna cosa se *devria* romper ni echar a mal, si muy detestable no fuesse, sino que a todos se *comunicasse*

Apparently there is a confusion involved; the author, starting out with an idea of purpose: 'para que ninguna cosa se rompiesse', changed to a direct, independent statement: 'Ninguna cosa se *devria* romper, etc.' and then reverted to the original idea of purpose in the clause 'sino que a todos se *comunicasse*'.

B. The Subjunctive of Uncertainty

1. Noun clauses

a. Object of a verb

I. After expressions involving doubt (2)

52.16: pensando que *fuesse* otra cosa

69.26: yo pense que la casa se *hundiera* con nosotros

Note that the concept expressed in the subordinate clause is contrary to fact. After an interrogative verb of thinking, the indicative is used in:

15.20: ¿Quien piensa que el soldado que es primero del escala *tiene* mas aborrescido el vivir?

23.28: ¿Pensareis que este mi moço *es* algun innocente?

II. Indirect questions (5)

20.2: y pensar como me *sepa* valer

20.10: para mostrar quanta virtud *sea*

47.10: Puseme a pensar que haria, y paresciome esperar a mi amo hasta que el dia demediasse, y [*sc. ver*] si *viniesse* y por ventura *traxesse* algo que comiessemos

58.32: buscava como por mal se las *tomassen*

b. Subject of impersonal expressions of

I. Possibility, probability, etc. (2)

15.4: podria ser que alguno que las lea *halle* algo que le agrade

40.29: no es possible sino que *hayas* sido moço de ciego

c. In apposition with a noun

49.37: sin maldita la blanca ni señal que la *huviessi* tenido (1)

The subjunctive is here undoubtedly due to the preceding negative. Modern usage would require the preposition *de* after *señal*.

2. Adjective clauses (Relative)

a. After an indefinite antecedent

I. Expressed by a noun or pronoun (8)

15.4: alguno que las *lea*

also 15.5 (2); 33.17; 38.9; 41.6; 55.16; 63.13

II. Involved in a relative pronoun

A. *el que* (*los que*, etc.) (3)

15.5: a los que no *ahondaren* tanto, los deleyte

also 16.6; 50.24

B. *lo que* (*todo lo que*) (5)

43.32: se comediria a ayudarme a lo que me *quedasse*

also 29.26; 55.17; 60.22; 70.19*

C. *que* (1)

49.31: por llevar a la posada con que el lo *passasse*

D. *quien* (4)

46.30: no ha de faltar quien se lo *de*

also 49.4; 49.27; 60.5

b. After a clause that is negative (11)

15.7: no hay libro... que no *tenga* alguna cosa buena

also 22.8; 31.24; 37.19; 45.18; 49.7; 55.9; 61.26; 68.2; 69.10; 70.4

c. After a clause that is interrogative implying a negative (2)

46.4: ¿Quien encontrara a aquel mi señor que no *piense*... haver anoche bien cenado... y... no le *cuenten*⁵ por bien almorzado

d. Concessive (1)

15.7: no hay libro, por malo que *sea*

e. Place (6)

32.14: a la parte que mas servido *fuesse*⁶

36.21: dexado un cuchillo viejo... en parte do le *hallasse*

⁵ Note the change in number.

⁶ Note the use of *que* for *do* or *donde*.

The antecedent is frequently involved in the relative adverb:

- 29.7: Yo veo por donde *travessemos* mas ayna
 36.3: no dexo en la triste y vieja arca agujero ni aun por donde le
 pudiesse entrar un moxquito
 55.12: ponerme a refñir, donde el lo *oyesse*
 61.7: meta siete estados debaxo de tierra, do el ni yo *parezcamos*

Clauses in this group might with equal propriety be considered adverbial

f. Potential (1)

- 47.11: si viniesse y por ventura traxesse algo que *comiessemos*

3. Adverbial clauses

a. Cause

I. With *como*

A. Present tense (2)

- 36.8: Como la necesidad *sea* tan gran maestra...
 38.5: aunque la coja la trampil la enzima, como no *entre* toda dentro,
 tornase a salir

B. Past tense in *-sse* (11)

- 17.22: Mi viuda madre, como sin marido y sin abrigo se *viesse*, determino
 arrimarse a los buenos
 20.4: Y como me *viesse* de buen ingenio, holgavase mucho
 22.11: Mas como *fuesse* el traydor tan astuto, pienso que me sintio
 26.18: Y como al presente nadie *estuviesse* sino el y yo solos, como me
 vi con apetito goloso...saque la longaniza
 34.23: Mas como la hambre *creciesse*...moria mala muerte
 36.24: y como la antiquissima arca...la *hallasse* sin fuerça y coraçon...
 luego se me rindio
 37.31: Como *hallasse* el pan ratonado...y no *cayesse* el raton que lo
 comia, davase al diablo
 50.21: Y fue, como el año en esta tierra *fuesse* esteril de pan, acordaron
 el Ayuntamiento...
 59.18: mas como la gente al gran ruydo *cargasse* y la casa *estuviesse*
 llena della, dezianse palabras injuriosas

C. Pluperfect tense in *huviesse* (2)

- 47.18: mas como yo este officio le *huviesse* *mamado* en la leche...tan
 suficiente discipulo sali...

56.24: Yo, como en otra tal no me *huviessse visto*...yo huve mucho miedo

The uses of *como* are puzzling. It is employed in indirect questions, in adverbial clauses of concession, manner, and time, as well as in causal clauses. Frequently it is difficult to tell whether the force is causal or temporal (cf. above 17.22; 20.4; 37.31; and 59.18). Nor is the reason for the use of the subjunctive obvious. The example given in 26.18 shows an almost parallel use of indicative and subjunctive and in general the indicative is quite as frequent as the subjunctive. It is possible that the use of the subjunctive is an imitation of the Latin construction in clauses introduced by *cum*. It is worthy of note that forms in *-ra*, either simple or compound, do not appear.

b. Concession

I. With *aunque* (11)

38.5: *aunque la coja la trampilla enzima*...tornase a salir

47.21: *aunque en este pueblo no havia charidad, ni el año fuesse*⁷ muy abundante, tan buena maña me di...

also 48.17; 48.35; 50.15; 55.8; 55.9; 57.4

23.22: *Aunque yo quisiera assentar mi coraçon*...no dava lugar el mal tratamiento...

30.24: que me paresce a mi que *aunque della no me aprovechara*, con la vista dello me consolara

31.20: *aunque algo huviera*, no pudiera cegalle

Clauses with *aunque* are in the subjunctive (1) when the time of the subordinate action is subsequent to the time of the principal action; and (2) when the clause with *aunque* takes the place of a conditional clause with *si*, in which case the tense of the verb follows the regular practice of conditional sentences. The last three examples cited above illustrate the use of a clause of concession to replace a conditional clause that is contrary to fact in the past.

II. With *por poco que* (1)

56.34: *Por poco que esso valga*, hay para nos entregar de la deuda

c. Exception

I. With *que*...no (2)

⁷ Note the use of indicative and subjunctive in parallel clauses.

39.2: de otra manera no era señor de una blanca quel maldito ciego no
cayesse con ella

48.35: nadie te lo vee hazer que no le *pongas gana*

II. With *sin que* (2)

38.37: me acaescio tener en ella doze o quinze maravedis, sin que me
estorvasse el comer

65.22*: pusole detras del missal, sin que nadie *mirasse* en ello

d. Imaginative comparison (*como si*)

I. Present, contrary to fact, (past in -sse) (1)

54.3: Mantengaos Dios, me haveis de dezir, como si *fuesse* quienquiera?

II. Past, contrary to fact

A. Past tense in -ra (6)

29.31: sono tan rezio como si *diera* con una gran calabaza
 also 30.32; 31.28; 40.30; 51.16; 63.13

B. Pluperfect in *hubiera* (2)

22.31: mas assi lo dissimulo como si no lo *hubiera sentido*

49.15: Por Dios que me ha sabido como si no *hubiera hoy comido* bocado

Clauses introduced by *como si* follow the regular practice of conditional sentences with *si*, but the use of the compound tense in the last two examples cited, instead of the more usual simple tense, is noteworthy.

e. Manner (*como*) (2)

42.33: por esso passate como *puquieres*

44.26: passemos como *podamos*

Clauses of manner are in the subjunctive only when the time of the subordinate clause is subsequent to that of the principal clause and when the action or state of the subordinate clause is regarded as indefinite and uncertain.

f. Proviso (*con tal que*) (1)

24.32: con tal que me *prometas* no tomar cada vez mas de una uva

g. Time

I. With *antes que* (6)

27.22: antes que el mal ciego *sacasse* de mi boca su trompa, tal alteracion
 sintio mi estomago. . .

also 29.36; 47.22; 53.32; 64.32*; 69.23

II. With *como* (5)

26.32: Como *tomasse* las revanadas y *mordiesse* en ellas, hallose en frio con el frio nabo

35.3: Mas el, como *viniesse* a comer y *abriesse* el arca, vio el mal pesar

39.27: mas como me *tocasse* con las manos, tento la mucha sangre que se me yva

III. With *hasta que* (2)

24.33: yo hare lo mesmo hasta que lo *acabemos*
also 47.10

IV. With *mientras* (1)

51.11: mientras aqui *estuvieremos*, hemos de padescer

V. With *otra vez que* (1)

53.30: votote a Dios...que otra vez que *venga*, me sepa yo entrar en una casa

In general, temporal clauses are in the subjunctive only when the time of the subordinate clause is subsequent to that of the principal clause and when the action or state of the subordinate clause is regarded as indefinite and uncertain. But clauses introduced by *antes que* or by *como*, are always in the subjunctive, in the case of the former, because the action or state expressed in its clause is inevitably subsequent to the action or state of the principal clause, in the case of the latter, perhaps through imitation of the Latin construction with *cum*.

Conditional Sentences

I. General, without contingency

A. Present (*Si tiene, doy*) (5)

44.31: bien *se* passar una noche y aun mas, si *es* menester, sin comer

51.31: Mas ¿que me *aprovecha*, si *esta* constituydo en mi triste fortuna...

54.11: no les *han* de hablar menos de...besoos, señor, las manos, si el que me habla *es* cavallero

68.19: si Lazaro de Tormes no *entiende* en ello, *hazen* cuenta de no sacar provecho

70.5: no *tengo* por mi amigo al que me haze pesar, mayormente si me *quieren* meter mal con mi muger

B. Past (*Si tenía, daba*) (4)

58.16: *presentava* a los clerigos o curas algunas cosillas...una lechuga murciana, si *era* por el tiempo

- 58.24: si *dezian* que entendian, no *hablava* palabra en latin
 58.27: Y si *savia* que los dichos clerigos eran de los reverendos... *haziase*
 entre ellos un Santo Tomas
 61.28: a todos *dava* las manos llenas, y si se *descuydavan*, en los hocicos

C. Mixed (3)

- 31.21: al que Dios *perdone*, si de aquella calabazada *fenescio*
 61.4: si *es* verdad lo que aquel dize... este pulpito se *hunda* conmigo
 62.16: encomendo que muy devotamenta *suplicassen* a Nuestro Señor
 tuviesse por bien de perdonar a aquel pecador... si su Magestad *havia permitido* que en el entrasse

II. Future 'more vivid'

A. *Si tiene, daré* (5)

- 28.22: Yo te digo, dixo, que si hombre en el mundo *ha* de ser bienaventurado con vino, que *seras* tu
 32.37: pues si deste *desisto* y *doy* en otro mas baxo, ¿que *sera* sino *fenescer*?
 37.20: si *andamos* mas con el, nos *dexara* sin guarda
 44.35: si por essa via *es*... nunca yo *morire*
 48.11: si a Dios *plaze*, presto nos *veremos* sin necesidad

B. Other forms (3)

- 45.34: porque si yo *viniere* en tanto, *pueda* entrar
 53.28: votote a Dios, si al conde *topo* en la calle y no me *quita*... el bonete, que... me *sepa* yo entrar en una casa... o *atravesar* otra calle, si la *hay*, por no quitarselo
 60.13: si en algun tiempo este *fuere* castigado por la falsedad, que vosotros me *seays* testigos

In each of these examples the present subjunctive in the conclusion (apodasis) is due to a governing element and is not an integral part of the conditional sentence. It is noteworthy that the text offers no examples of the types: *Si tuviere, daré* or *Si tiene, dé Vd.*

III. Future 'less vivid'

A. *Si tuviesse, daría* (1)

- 33.12: no *hariades* poco, si me *remediassedes*

B. *Si tenía, daría* (1)

- 43.30: le vi en disposicion, si *acavava* antes que yo, se *comediria* a ayudarme

This type is common in indirect quotations and represents the transfer to past time of the type *Si tiene, daré*

C. Other forms (6)

- 15.10: Y esto para que ninguna cosa se devria romper ni echar a mal, si muy detestable no *fuesse*, sino que a todos se *comunicasse*
 55.3: Por Dios, si con el *topasse*, muy gran su privado pienso que *fuesse* y que mil servicios le *hiziesse*

In these cases the past subjunctive in *-sse* of the conclusion is due to the governing element.

- 55.14: si *riñesse* con alguno su criado, *dar* unos puntillos agudos para le encender la yra

The *dar* of the conclusion is the infinitive element of a conditional tense, expressed in full, in the divided form *reylle ya*, in the earlier part of the same sentence (55.7) and now used without repetition of the termination *-ia*.

- 60.24: mi amo le pregunto, si *queria* dezir mas, que lo *dixesse*

Like the example cited above in B., this represents a transfer to past time of the type *Si tiene, dé Vd.*

- 61.35: y le suplicaron quisiesse socorrer a aquel pobre...mas si en algo *podria* aprovechar para librarle del peligro...por amor de Dios lo *hiziesse*

Although the future indicative is occasionally found in clauses with *si* meaning 'if' (cf. *Diálogo de la lengua* 410. 4: Si...*querrá* dezir aquella misma sentencia, *dirá*...), the use of the conditional is so exceptional as to make it probable that *podria* is an error for *podia* and that this is another example of the type already illustrated in 60.24.

- 31.17: Vime claramente *yr* a la sepultura, si Dios y mi saber no me *remediaran* [read: *remediavan*?]

Here again, it is probable that the reading of the text is a misprint. The original thought was 'Yre a la sepultura, si Dios y mi saber no me *remedian*', which when transferred to past time would give the type recorded in B, that is, an imperfect indicative in the condition. If the condition were regarded as truly 'less vivid', the subjunctive would be the *-sse* form, if we may judge by the other examples in the text. The use of the subjunctive in *-ra* in this case is at variance with the usage of the *Lazarillo*.

IV. Contrary to fact, present (*Si tuviesse, daría*) (1)15.14: si assi no *fuesse*, muy pocos *escribirian* para uno solo

Conditions less vivid future and contrary to fact present have the same form, cf. III, A.

V. Contrary to fact, past (*Si tuviera, diera*) (6)16.1: ¿que *hiziera*, si *fuera* verdad?16.7: Suplico a V. M. reciba el pobre servicio de mano de quien lo *hiziera* mas rico, si su poder y desseo se *conformaran*⁸21.1: si con mi sotileza y buenas mañas no me *supiera* remediar, muchas vezes me *finara* de hambre27.26: Fue tal el corage del perverso ciego que si al ruydo no *acudieran*, pienso no me *dexara* con la vida30.35: si por males de mis pecados me *desmandara* a mas de mi tassa, me *costara* caro34.8: Si no *tuviera* a tan buen recaudo esta arca, yo *dixera* que me *havian* tomado panes della

VI. Mixed Conditions

A. *Si tuviesse, dará* (1)41.6: Y ¿adonde se *hallara* esse... si Dios agora de nuevo no lo *criasse*?

This represents a natural combination of the less vivid and more vivid types, as in English: 'If he *should* come, what *will* you do?'

VII. Incomplete conditions

A. *Si* clause omitted, but replaced by

1. Participle (1)

28.10: y no *pareciendo* ellas, *pudiera* negar la demanda (V)⁹

2. Prepositional phrase (5)

23.19: *a pocos golpes tales*, el cruel ciego *ahorraria* de mi (III, B)28.7: *con solo apretar los dientes*, se me *quedaran* en casa, y con ser de aquel malvado, por ventura lo *retuviera* mejor mi estomago (V)33.3: *y a bazar otro punto*, no *sonara* Lazaro ni se *oyera* en el mundo (V)

⁸ It is possible that this is a condition contrary to fact in the present, but in view of the general usage of the text, it seems probable that it should be classified among the past conditions, since the past meaning is equally appropriate.

⁹ I have indicated the type to which each sentence belongs by reference to the preceding classification.

54.19: *a estar ellas en pie...valdrian mas de doscientos mil maravedis* (IV)

54.23: *a no estar derribado, como esta, daria cada año mas de doscientos palominos* (IV)

3. Relative clause (4)

37.14: *quien quisiera propiamente della hablar, mas coraças viejas de otro tiempo que no arcaz la llamara* (V)

45.36: *quien no le conociera, pensara ser muy cercano pariente al conde de Arcos* (V)

50.28: *Aqui viera, quien vello pudiera, la abstinencia de mi casa* (V)

70.11: *quien otra cosa me dixere, yo me matare con el* (III, B)

It should be observed that the verb of the relative clause, follows the regular practice of *si* clauses

In addition to the special cases listed here, many of the adverbial clauses take the place of a conditional clause with *si*. This is particularly true of clauses of concession, exception, proviso, and supposition. In general the verb of the adverbial clause follows the general practice of clauses with *si*, with the exception that the present indicative of *si* clauses is regularly replaced by the present subjunctive in adverbial clauses of the type under discussion. Clauses of imaginative comparison, introduced by *como si*, also follow the general practice for conditional sentences of the types present contrary to fact and past contrary to fact.

B. *Si* clause omitted, and not directly implied

1. Conditional tense (15)

15.4: *podria ser que alguno que las lea, halle algo que le agrade* and 14 other examples

2. Past subjunctive in *-ra* (21)

21.11: *era con tanta vigilancia y tan por contadero que no bastara todo el mundo hazerle menos una migaja*

23.29: *Pues oyd si el demonio ensayara otra tal hazaña*

37.36: *Acordaron los vezinos no ser el raton el que este daño hazia, porque no fuera menos de haver caydo alguna vez*

50.11: *que quisiera yo que no tuviera tanta presuncion*

53.22: *Paresceme, señor,... que en esso no mirara*

69.28: *en tal manera que quisiera ser muerto, antes que se me huviera soltado aquella palabra*

and the examples listed under the Subjunctive in Principal Clauses.

C. Conclusion omitted

(4)

23.36: Si havia piedras, por ellas; si lodo, por lo mas alto

26.35: ¡Lazerado de mi... si quereis a mi echar algo!

29.7: mas si quereis, yo veo por donde travessemos mas ayna

56.22: Mochacho, tu eres preso, si no descubres los bienes deste tu amo

In the last two examples, the verb expressed is not the logical conclusion to the condition. The *eres* of the last example cannot be an instance of the use of the present for the future, since the *alguazil* already has his hand on Lazarillo's collar.

The Tenses of the Subjunctive

I. Simple tenses

A. Present

(113)

15.2: Yo por bien tengo que cosas tan señaladas... *vengan* a noticia de muchos y no se *entierren* en la sepultura del olvido17.1: Pues *sepa* V. M. ante todas cosas que a mi llaman Lazaro
in all 113 examplesB. Past in *-ra*

1. In principal clauses

a. Wish, contrary to fact in past

(4)

25.36*; 27.25; 28.11; 31.7. See p. 42

b. Potential, for conditional perfect

(15)

See p. 44

c. As pluperfect indicative in subordinate clauses only

(3)

34.18: Contelos [*sc. para ver*] si a dicha el lazerado se *errara*55.33: de dos meses le alcançaron lo que el en un año no *alcançara*¹⁰63.5: porque el demonio recivia mucha pena del bien que alli se *hiziera*
en tomar la bulla

d. As past indicative

(2?)

57.21: creo yo que el pecador alfamar *pagara* por todos, y bien se empleava

In view of the imperfect indicative in the second part of the sentence, it is possible that *pagara* is a misprint for *pagava*

64.15: vimonos en tanta priessa que a mi aynas me *acabaran* de romper un pobre y viejo sayo que traya

¹⁰ It is possible that this is an example of the use of the *-ra* form instead of the conditional perfect.

Although the use of the *-ra* form for the preterite indicative is not infrequent, it is probable that *acabaran* is a misprint for *acabaron*.

2. In subordinate clauses

a. Conditional clauses with *si* (6)

16.1; 16.7; 21.1; 27.26; 30.35; 34.8. See p. 58

b. Clauses replacing a conditional clause

I. With *aunque* (3)

23.22; 30.24; 31.20. See p. 53

II. With relative *quien* (3)

37.14; 45.36; 50.28. See p. 59

c. Clauses of imaginative comparison (6)

(*como si*)

29.31; 30.32; 31.28; 40.30; 51.16; 63.13. See p. 54

d. Potential, for conditional perfect (6)

21.11; 23.29; 37.36; 50.11; 53.22; 69.28. See p. 59

e. Other uses (5)

25.37: *adonde pluguiere* [*read: pluguiera*] *nunca alla llegaramos*

31.7: *y pluguiera a Dios que me demediara*

This usage has been discussed on p. 42

50.11: *que quisiera yo que no tuviera tanta presuncion, mas que abaxara un poco su fantasia*

63.13: *como si fueran peras que se dieran de balde*

These are the only cases of a *-ra* subjunctive in a subordinate clause referring to simple past time. It should be noted, however, that they are both dependent on a subjunctive in *-ra* which is either potential or contrary to fact in past time and that since the time which they reflect is coincident with the time of the verb on which they depend, they do in fact refer to an action or state which is contrary to fact in the past.

A somewhat similar situation occurs in

69.26: *que yo pense la casa se hundiera con nosotros*

Here the preterite *pense* reveals that the thought which he entertained for a moment, proved untrue; hence the subjunctive in *-ra* properly represents this action as contrary to fact in past time.

C. Past in *-sse*

1. In principal clauses

- a. Wish, contrary to fact in present (1)

45.17: ¡O si *supiesses*, moço, que peça es esta!

2. In subordinate clauses

- a. Conditional clauses with *si* (6)

15.12; 15.14; 33.12; 41.8; 55.4; 55.14. See pp. 47, 56ff.

- b. Other clauses (117)

17.22; Mi biuda madre, como sin marido y sin abrigo se *viesse*, determino arrimarse a los buenos

in all, 117 examples

The form in *-sse* is the regular mode of expression in subordinate clauses for the simple past subjunctive. In conditional clauses and clauses of imaginative comparison it is often contrary to fact in present time. It is noteworthy that, because of the narrative character of the text, the *-sse* form is more frequent than the present subjunctive.

D. Future, in subordinate clauses only

1. Conditional clauses (2)

45.34: porque si yo *viniere* en tanto, pueda entrar

60.14: y si en algun tiempo este *fuere* castigado por la falsedad, que vosotros me seays testigos. . .

2. Manner (1)

42.33; por esso passate como *pudieres*

3. Relative (5)

15.5: y a los que no *ahondaren* tanto, los deleyte

16.6: y se huelguen con ello todos los que en ella algun gusto *hallaren*

60.5: despues oyreis a quien *quisierdes*

70.11: y quien otra cosa me *dixere*, yo me matare con el

70.19*: De lo que de aqui adelante me *suscediere* avisare a V. M.

4. Time (1)

51.11: mientras aqui *estuvieremos*, hemos de padescer

II. Compound tenses

A. Perfect (1)

40.29: no es possible sino que *hayas sido* moço de ciego

B. Pluperfect in *hubiera* (4)

22.30: como si no lo *hubiera sentido*

28.11: Pluguiera a Dios que lo *hubiera hecho*

49.15: como si no *hubiera* hoy *comido* bocado

69.29: quisiera ser muerto antes que se me *hubiera soltado* aquella palabra

C. Pluperfect in *hubiesse* (3)

47.18: mas como yo este officio le *hubiesse mamado* en la leche... tan suficiente discipulo sali...

49.37: sin maldita la blanca ni señal que la *hubiesse tenido* mucho tiempo

56.24: Yo como en otra tal no me *hubiesse visto*... yo huve mucho miedo

Because of the use of the simple form in *-ra* instead of a pluperfect, the pluperfect subjunctive forms are relatively rare. The future perfect subjunctive does not appear in the *Lazarillo*.

A PRELIMINARY SKETCH OF THE ZAPOTEC LANGUAGE

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[Sketch of the Zapotec language (primarily the dialect of Tehuantepec) as now spoken. The article is based on observations made (1912-1929) by the author, and includes also some comment on discrepancies between his data and those of Cordova.]

INTRODUCTION.¹ In contradistinction to the aboriginal languages of the United States, those of Mexico possess a fairly well-documented history. This is particularly the case for Zapotec. A representative series of grammars, dictionaries, and confesionarios beginning with 1578 and extending to our own time enables us to get a fairly good insight into both the phonetics and the structure of the language throughout the vicissitudes of the last 350 years. For a language like Zapotec, which has incorporated so many Spanish loan-words into its vocabulary, this is of considerable importance. At a moderate estimate no Zapotec dialect today has less than 20% Spanish vocabulary and most of them have from 20 to 30%. Yet strangely enough, in spite of this great influx of Spanish loan-words, the structure of the language itself has been entirely unaffected by Spanish. The changes that have occurred are those that we are to expect in any language over a period of 350 years. Indeed, as compared with the differences between the English of Shakespeare and modern English, Zapotec can be said to have remained almost unchanged.

With all their defects the grammars and the dictionaries written by the missionaries between 1578 and 1824 are extremely valuable. To mention only the most important and available they are, first and foremost, the famous grammar and dictionary of the Dominican friar Juan de Cordova;² an anonymous dictionary, probably that of Aguero;³ a

¹ It goes without saying that only the most important features of the language have been touched upon and those only briefly. This is particularly true of the phonetics, the nominal and adjective stem, the whole question of stem composition, nominal incorporation, and the Spanish loan-words.

² The grammar was printed in 1578 and has been reprinted with numerous typographical errors by Nicolas Leon (Morelia 1886). The dictionary was likewise printed in 1578. Only one copy is known and that has been reproduced in photostat.

³ Reprinted as *Vocabulario Castellano-Zapoteco* and published by the Junta Colombino de México (México 1893).

short grammar by Gaspar de los Reyes;⁴ and an anonymous grammar.⁵ These taken together with the data obtained by me (1912-1929) and de Angulo (1922) give Zapotec a somewhat enviable record.⁶

This is not the place to attempt a sketch of the history of Zapotec since the sixteenth century. That is to be reserved for some future publication. There are however a number of discrepancies between Cordova's and my data that require a few words of comment.

Cordova, as we might have expected, failed to record a number of phonetic traits of the language that happen to be of fundamental significance. These are pitch accent, nasalized vowels, the glottal stop, the consonant *ř* (pronounced like Czech *ř*), the nasalized stops and a few minor points. There can be no question but that they existed in his time for these are not sounds that vary from subdialect to subdialect today. They were found in all the five dialects and thirty subdialects that I studied and in all the numerous ones investigated by de Angulo. In view, however, of his unusually penetrating insight into the grammar of Zapotec, Cordova's failure to mention some of the fundamental grammatical features found by me is more puzzling and inevitably raises the question as to whether they are to be regarded as new developments, in part or in whole. Fortunately his own dictionary shows that he failed to record in his grammar quite a number of features for which there is ample evidence in his dictionary and these are, in part, some of the forms that I obtained. The fundamental six-fold differentiation of the third person pronoun for man, woman, animal, thing, holy object, and small human object (Spanish *creatura*), he seems to have missed entirely, although I know of no subdialect where it has been reduced to less than three of these categories. On the whole it would seem best to regard as very old traits of the language all those features which are not recorded by Cordova but are found by me to be distributed over all the five dialects of Zapotec. Where forms are found limited to but one or two dialects they may very well be recent developments, although of course not necessarily so.

⁴ Reprinted by F. Belmar under the title of *Gramática de las lenguas Zapoteca-Serrano y Zapoteca del Valle* (Oaxaca 1891).

⁵ Reprinted by A. Peñafiel under the title *Gramática de la Lengua Zapoteca* (México 1887).

⁶ The works of F. Belmar of which the most important is *Las Lenguas Indígenas de México* 1905 are, as far as they relate to Zapotec, of comparatively little consequence nor can great importance be attached to the voluminous vocabularies collected under the direction of A. Peñafiel in 1886.

I have discussed the grouping of the Zapotec dialects before.⁷ With minor corrections I see no reason for changing my former classification. I divide Zapotec into six main divisions: that of the Valle, Tehuano, Serrano, Nexitzo, Villa Alta, and Miahuatlan. These dialects are all spoken in the state of Oaxaca, the first in the valley extending from Mitla to the mountains of Miahuatlan, the second in the isthmus of Tehuantepec, the third in the district of Ixtlan in the Sierra Juarez mountains, the fourth and fifth in the district of Villa Alta and the last in the mountains of Miahuatlan.

In the following paper I shall limit myself mainly to a presentation of the main features of the language, and in order to prevent the use of an unnecessarily large number of forms and at the same time for the sake of concreteness, I shall primarily discuss only one dialect, that of Tehuantepec. Although in certain respects this is the least archaic of all the dialects, the fundamental characteristics of the language are as clearly represented here as in any of the more conservative ones. Whenever it is necessary for the more complete elucidation of a point, forms from the other dialects will be introduced.⁸

PHONOLOGY. In transcribing Tehuano I have used the following symbols, by the side of which in cases of difference are placed, except for the palatals, those recommended by the Copenhagen Conference:

Stop Sounds			Spirants	
p	b	m	v [β]	
t	d	n	θ	ð
k	g	ŋ	x [χ]	γ
k ^v [k']	g ^v [g']			
Sibilants			Affricatives	
s	c [š]	z	j [ž]	
			tc [tš]	dj [dž]
Liquids				
l [l']	r	ř		

Consonants may be either short, for instance [p]; or long [p']; or aspirated [p']; or nasalized [mp]. Most of the nasalized consonants are

⁷ 'The Distribution and Phonetics of the Zapotec Dialects' *Journal de la Société des Américanistes de Paris* NS 17. 27-76 (1925).

⁸ In order to save space I will use the following abbreviations: Za, for the Zaachila subdialect of the Valle; M for the Mitla subdialect of the Valle; Ja, for the Jaltianguis subdialect of Serrano; Ta, for the Talea subdialect of Nexitzo; Ya, for the Yalalag subdialect of Villa Alta. All the other forms are Tehuano. Where I distinguish between the various minor subdialects of Tehuano it will be specified.

either stops or affricatives, and these are generally nasalized only when in initial position.

	Vowels				
half-closed	a	e	i	o	u
open	α	ε	ι	ɔ	υ

All are either short [a] or long [a']. They have either a middle [a], a high [á] or a low [à] pitch. Vowels are either glottalized [a'], aspirated [a^h], nasalized [a_n] or rearticulated [a^a].

GRAMMAR: GENERAL REMARKS. All stems, without exception, end in vowels. In this respect Tehuano is more conservative than the other dialects. This is true for all the dialects of Zapotec; although in some like those of the Valle, Villa Alta, and Nexitzo terminal vowels have often become whispered and are at times difficult to hear. Verb and noun stems appear in two contrasting forms, the absolute and the non-absolute. The former generally represents the stem, the latter the stem plus pronominal affixes. The final vowel of the absolute is almost always low or middle in pitch; that of the non-absolute forms varies, the first person singular always being high, the second low, and the third either high or middle, generally high. In the very few cases where the final vowel of the absolute is high that of the non-absolute forms is either middle or low. Without a clear realization of these tone patterns Zapotec grammar is unintelligible.

It is not always easy to reconstruct the absolute from the non-absolute forms: first, because the terminal vowel of the absolute frequently coalesces with that of the suffixed personal pronoun in the first and second singular; secondly, because even in those forms where it is retained it undergoes certain changes; and thirdly because of the occurrence of certain prefixes and infixes in the non-absolute form. Thus, for example, unless a person were well conversant with the structure of Zapotec he would be at some loss to reconstruct the absolute stem from such a form as *rusá'ké* 'I burn'. It is actually *á'ki*. Here at least the force of -u- and -s- are known. But nothing could possibly tell us that the absolute form for *rigúúbá* 'I carry an object' is *dúúbá* or that the absolute form of *ruk'ú'djé* 'I soften', would be *gú'dji*. It is consequently imperative for a correct understanding of Tehuano and Zapotec in general, to try and obtain the absolute form. We shall see in the course of this sketch the difficulties attendant upon such an attempt.

To understand Zapotec we must understand the verb, and most of the following pages will be devoted to its elucidation. As early as 1578 Cordova attempted to bring some semblance of order into the chaos of

Zapotec verbal forms. He divided them into four classes, those beginning in the present (my indefinite), with *ra-*, *re-*, *ri-*, or *ru-*. Naturally he equated them with the four conjugations of Latin and he was right to this extent, that all verbs did actually begin with one or the other of these vowels. What he did not take into account and what made his grouping quite misleading was the fact that most verbs could begin with at least three of these vowel prefixes and some with all four. In most dialects they still can, although this varies considerably from subdialect to subdialect. It holds for all the subdialects of Valle, Serrano, Nexitzo and Villa Alta that I studied. In Tehuano the *ε*-verbs have practically disappeared and the *a-* has fused with the stem.

The meanings of these prefixes today are quite clear. They are all verbal-classifiers, *a-* being prefixed to neuter-inactive verbs; *ε-* to semi-reflexive-middle; *i-* to passive-intransitive and *o-* to active-transitive. Thus, for example, we find in Za. the following forms; *raik'i itcá'a*, *reg'i itcá'a*, *rig'i itcá'a*, *ruk'i itcá'a*, 'I compress, tighten'. Cordova had an inkling of this himself for on page 68 of his grammar he gives the following forms for 'texer', 'to weave';—*taabaya* 'texer'; *tiyaaba* 'estarse texendo'; *teyaabaya* 'texerse'; *tocoyabaya* 'hazer texer'. Cordova even realized that the *i*-verbs fell into two classes one of which was passive and the other active. This *i-*, that appears in the active verbs, is simply the initial vowel of the stem, for many verb stems in Zapotec begin in vowels and not all verbs must have a verbal-classifier although the vast majority do.

VERBAL-CLASSIFIERS. The particular vowels just mentioned as aspect classifiers were found by Cordova only in the indefinite tense with the exception of *ε-* which is found in all forms. In the perfective the others change respectively to *-o-*, *-o-* or *-a-*, *-i-* or *-ε-*. In the future and subjunctive they follow the indefinite except in certain irregular verbs. We have here a true ablaut series. In the vast majority of cases this vowel alternation still holds. Its origin, if I may hazard the hypothesis, is to be sought in the influence of an old labialized *k* which apparently, at an early period in the history of Zapotec, (for this two-fold development is found in all the Zapotec languages as early as Cordova), split into *k* and *b* respectively. This labialized *k* is still found in most of the Serrano dialects.

THE VERB-UNIT. The typical verb-unit consists of a number of firmly fused prefixes each occupying a fixed position, followed by the stem and a number of suffixes. Of these the pronominal suffixes are always the last. A few examples must suffice:

bijj'j'ón'esivé 'after I ran'. Here *b-* is a prefix, first position, the sign of the perfective; *-i-* is the perfective form of the verbal-classifier *-o-*; *j'j'ón'e* is the stem; *-si-* is a suffix, first position, meaning 'after'; *-vé-* is the pronominal suffix of the third person singular.

rusán'nálw' 'you left it'. For *r-* cf. above; *-u-* is the indefinite form of the active-transitive verbal classifier; *-s⁹* is the transitive prefix; *án'na* is the stem; *-lw'* is the pronominal suffix for the second person singular.

riθútakwénú 'we lie on one side'. *r-* is the indefinite; *-i-* is the irregular change of indefinite verbal-classifier in the first person plural¹⁰; *-θ-* is an irregular infix that appears in the first person plural of a small group of verbs; *úta* is the secondary base of stem *áta*; *-kwé-* is a suffixed noun meaning 'side' or 'shoulder' not used in Tehuano today; *-nú* is the pronominal suffix for the first person plural.

The last example has brought to our notice one of the outstanding characteristics of Zapotec, namely its fondness for stem composition. It is an old feature of the language duly recognized by Cordova and was probably more extensively used in his time than today, to judge from the forms in his grammar and dictionary. All types of composition are known from the loose juxtaposition of one stem with another to fairly definite fusion involving marked phonetic changes. A few examples follow:

1. *Verb plus noun.* *guná'badí'djavé* 'he asked'. *guná'ba*, 'he asked'; *dí'dja* 'word'; *vé* pronominal suffix third person singular.

rikíte'lá'djé 'I am glad'. *rikíte* 'to lower'; *lá'djé* 'heart-I'.

Frequently however the fusion is even slighter: for example, in *risáyaládjé* 'I remember' (literally 'I go, my heart') both the verb and the noun receive pronominal endings.

2. *Verb plus verb.* All degrees of fusion occur. The most complete is that between auxiliary verbs and other verb stems.

Examples: *tcuk'úudjé* 'I am going to soften'. *tcá'* future of 'to go'; *k'úudjé* 'I soften'.

⁹ This holds true for a certain group of verbs today. In Cordova's day it was much more general.

¹⁰ In Cordova's grammar which was based on the subdialect of Tlacoahuaya, a pueblo near Oaxaca, the number of functional prefixes of this type was quite considerable. On page 53 of his grammar he gives a form *tococēcacia*, 'hazy que duerma otra vez', where *cía* is the stem for 'dormir'. All the Zapotec dialects except Tehuano have preserved quite a number of these. In Tehuano itself many of them have become idiomatically fused with the stem.

tcetl-idjé 'I am going to embrace'. *tc-* cf. above; *tl-idjé* from *gt'idjé* 'I embrace'.

tcendódá 'I am going to place'. *tc-* cf. above; *ndódá* from *rigódá* 'I place'.

TYPES OF VERB. As we remarked above there are a number of definite tone-patterns for the verb. These tone patterns are determined by two phonetic considerations, first the contraction of the pronominal suffixes with the final vowel of the stem, and secondly the influence of the tone of the pronominal suffix upon the penultimate vowel of the stem. The tones of the pronominal suffixes are respectively high for the first person, low for the second, and high for the third. To this there are a few negligible exceptions possibly even due to mishearing. Whenever the terminal vowel of the stem merges with that of the pronominal suffix—and that holds for a very large proportion of verbs in the first and second person—the tone of the pronominal suffix prevails. For instance *rusá'ki* 'to burn'; *rusá'ké* 'I burn'; *rusá'kù* 'you burn'. Whenever there is no contraction, the terminal vowel of the absolute retains its tone. For example, *ríní* 'to talk'; *ríní'á* 'I talk'; *ríní'lù* 'you talk'. Under what conditions the tone of the pronominal suffix affects the penultimate vowel of the stem it is hard to determine. Take for example *rilù'cé* 'to finish'; *rilù'cé* 'I finish'; *ríní'á* 'I talk', *rínìù* 'you talk'; *rúndó'ó'ba* 'to sweep', *rúndó'ó'bá* 'I sweep'; *riyába* 'to fall', *riyábá* 'I fall', *riyábávé* 'he falls'. But, on the other hand, we find *rigí'ba* 'to sew', *rigí'bá* 'I sew'; *rutcénda* 'to cover'. *rutcéndù* 'you cover'.

In the nominal stems we find, on the whole, the same phenomenon illustrated.

We may then, in summarizing, say that some of the tone-patterns of the verb and noun are secondary developments due to the influence of the pronominal suffixes.¹¹ That does not, of course, interfere with the fact that they are functional today and have probably been so for a very long period.

All verbs can be divided into two major groups: those that form their perfectives in *ko-* or *ku-*, and those that form them in *bi-* or *ba-* or *be-*. All forms with verbal-classifiers in *a-*, *i-* take *k'*- and all those in *o-* take *b'*-. There is absolutely no difference in meaning between *k'*- and

¹¹ I find no trace whatsoever either in Tehuano or the other dialects or subdialects I have studied, of a grouping such as de Angulo postulates for Teotitlan del Valle (cf. LANGUAGE 2.242-8, esp. 247-8). He there describes two types of verb, in the first of which tone is used as a functional factor while in the second it simply possesses a semantic character. In Teotitlan apparently the functional factor of tones has been lost for many verbs and nouns.

b°, and both sounds, as indicated before, probably go back to an older labialized *k* still preserved in the Serrano dialects.

IRREGULAR VERBS. A large number of Zapotec verbs, among them some of the most important in the language, are irregular. These irregularities are of two kinds. The first consists of changes in the initial vowel, the shifting from one form of the perfective to the other, and the intercalation of the infix *-θu-* in the first person plural of the independent, perfective and future. There are a few irregular verbs of this type left in Tehuano today. In the dialect described by Cordova there were very many, and they are still quite common in all the dialects except Tehuano. Examples:

rá^ana 'I cultivate', *gɔ''na* 'I cultivated', *bi'anánú* 'we cultivated' (for **gu'a'nanu*). *rát'akwé'a* 'I rest on my side', *bi'θútákwe'nu* 'we rested on our sides' (for **gu't'ákwe'nu*).

rindá'ya 'I see', *biθú'nanu* 'we saw' (for **guná'nu*).

The second type of irregularity is of a much more far-reaching character for it often transforms the perfective stem beyond recognition. It is confined exclusively to verbs with verbal-classifier *i-*, in other words, to verbs that are predominatingly medio-passive or passive in connotation. All dialects share these irregularities and they already existed in Cordova's time. To explain most of these changes by recourse to phonetic considerations is out of the question. It is far more likely that we are here dealing with petrified prefixes that for some reason or other survived in the perfective form and not in the others. The preservation of *-θu-* in the first person plural shown above is an instance of the same phenomenon.

The irregularities in the formation of the perfective fall into three types: stems that change initial *b-* and *g-* to *l-*; stems that change initial *b-* or *g-* to *dj-*; stems that change initial *g-* or *k-* to *d-*. In the sixteenth century the Valle dialects had a fourth type, stems that changed initial *z-* to *c-*¹² (*x* in Cordova's orthography). Of this fourth type there are sporadic examples in some of the subdialects of Nezitxo, notably Talea.

1. *Perfectives with l-*. *ribá-an'a* 'I steal', *gulá-an'a* 'I stole'; *ribéa* 'I extract', *guléa* 'I extracted'; *rigɔ'aná'a* 'I seize', *gɔ'lóan'a* 'I seized'.
2. *Perfectives with -dj-*. *ribíbe* 'I strain, filter', *gudjibe* 'I strained'; *rigíte* 'I play', *gudjíte* 'I played'.

¹² *rizúwá* I stand, *gosúwá* I stood, is an instance.

3. *Perfectives with -d-*. *rigá'p'a* 'I slap his face', *gudá'p'a* 'I slapped his face'; *rigí'dje'* 'I embrace', *gudí'dje'* 'I embraced'.

The most plausible explanation for these irregularities is that we are here dealing with old petrified prefixes and that in the indefinite one prefix has survived and in the perfective another. There are quite a number of facts that speak definitely in favor of such an hypothesis. First of all *b^v-*, *l^v-*, *dj^v-*, *d^v-*, are still partially functional prefixes in a large number of dialects notably in Za., Ja., Ta., and Yal.; and secondly, there are a number of instances where the preservation of such a prefix in one tense-form or another is still quite clear, as for example: *ribà'ne* 'I awake', *gokwà'ne* perfective; *ré'é'* 'I drink', *gwé'é'* perfective; and thirdly, in certain dialects, we find perfectly regular paradigms for some of these irregular verbs. In San Juan Atepec (Serrano), for instance, we find for the indefinite of the verb *rutsí'ibí* 'to filter' perfective *betsí'ibí* and in Za. we get *rubí'ibí* indefinite and *gubí'ibí* perfective.¹³ Or again contrast *rigó''uná* 'I grasp' with *gulú'uná* 'I grasped' (subdialect of San Dionisio del Valle) or *rig^uá'aná* 'I grasp' with *big^uá'aná* 'I grasped' in Za. In this last case, as a matter of fact, we happen to know that *-(y'a)ná* is the stem, for it is simply the verbal form of the noun *ná* 'hand'. The force of these 'prefixes' is also considerably clarified by the differences in form encountered between certain active-transitive and intransitive-passive verbs.

There is no reason for regarding forms such as Za. *rubí'ibí*, *gubí'ibí* as due to analogical levelling. How fictitious, in fact, some of these irregular conjugations of Tehuano, and of Zapotec in general, really are, can perhaps best be brought out by the following comparisons: San Juan Atepec (Serrano dialect) *riðíá'a* 'I seize', *'uñíá'a* or *γuðíá'a* 'I seized': Ya. *dji'gúd* 'I seize', *gudá'a* 'I seized'.

ACTIVE-TRANSITIVE AND PASSIVE-INTRANSITIVE. In Tehuano the active-transitive form of the verb is frequently sharply contrasted with the intransitive not merely by its possession of a different verbal-classifier *-o-* as opposed to *-i-* but also in other ways, either by the presence of an infix, the change of the initial consonant of the stem from sonant to corresponding surd, or by the complete change of the initial consonant of the stem.

1. *Forms with infix.* These are all clear enough, for the infixes involved are still functional prefixes with causative-transitive significance.

¹³ Note also in Tehuano such forms as *rigtíbé*, *rittíbé* 'I filter', (active-transitive) as compared with *ribíbé* 'I filter' (intransitive), and the two forms *ritcía'a*, *ribída'a*, 'I stretch' (intransitive).

There are two, *-s-* and *-g-* and the peculiarity of their use in Tehuano as compared with that described by Cordova, is that today a verb employs either the one or the other whereas in the sixteenth century many verbs could use both. A few examples follow: *rusán'ná* 'I seize' (active), *riyán'na* 'I seize' (intransitive); *rusá'ké* 'I burn', *riá'ke* 'I burn' (intransitive); *rogá'a'ta* 'I put a person to sleep', *rà'a'ta* 'I go to sleep' (passive); *rogá'gá* 'I choke' (active), *rá'ga* 'I am choking' (intransitive).

2. *Change from sonant to corresponding surd.* This consonant ablaut appears in the Valle, Serrano, and the Tehuano dialects. It is apparently of considerable antiquity. Unquestionably it is a secondary development due to the contraction of the sonant with an old *-t-* prefix having causative force that is still functional in some of the Serrano dialects (San Juan Atepec, Jaltianguis).¹⁴ Examples: *rigí'djé* 'I embrace' (intransitive), *ruk'í'djé* 'I embrace' (transitive) for **rutgí'djé*. *ridúcuá* 'I file' (intransitive), *rutúcuá* 'I file' (transitive) for **rutdúcuá*. *ridjibe* 'I am frightened' (intransitive), *rutcibe* 'I frighten' (transitive) for **rutdjibe*.

3. *Irregular Changes.* The changes are prevailing from *-l-* to *-nd-* or from *-r-* to *-tc-*. In explanation I would like to suggest either that we are dealing with two entirely distinct petrified prefixes as in the case of the irregular perfectives or that *-nd-* represents a contraction for *-t-* causative and *-l-* and *-tc-* a contraction for *-t-* causative and *-r-*. The difficulty in the way of the first hypothesis is that there seems to be no *-nd-* prefix functional or petrified,¹⁵ and the difficulty in the way of the second hypothesis is that in certain of the dialects *-r-*, *-tc-* and *-l-* are prefixes still functioning. Besides the interpretation of *-nd-* as a contraction for *-tl-* has its own difficulties.¹⁶ Examples:

(a) *Actives in -nd-*. *rvn'ndújé* 'I finish', *rilújé* 'I finish' (intransitive); *rvndo'j'ba* 'I sweep'; *riló'j'ba* 'I sweep' (intransitive); *rindáa* 'I place', *ribáaki* 'I am placed'; *rindàgóa* 'I glean', *ribàgò* 'I glean' (intransitive); *rundi'bé* 'I tie', *riri'bi* 'I am tied'.

(b) *Actives in -tc-*. *rutcén'dá* 'I cover', *rirén'dá* 'to be covered'; *rutcúugá* 'I cut', *rirúugù* 'to be cut'; *ritcézá* 'I break', *riréza* 'to be broken'; *ridjít'é* 'I cheat', *rigít'é* 'to be cheated'.

¹⁴ There is one clear-cut case in Tehuano: *ri'égo* 'it is closed', *rotégo* 'to close' (transitive).

¹⁵ There is one example in Tehuano that points to *-nd-* as a true prefix namely *riit'é* 'I lower' (intransitive), *rundiit'é* 'I lower' (transitive).

¹⁶ The following four forms militate strongly against the contraction hypothesis: *riri'bi*, *rilí'bi* 'to tie' (intransitive) and *rutí'bi*, *rudí'bi* 'to tie' (transitive).

(c) *Non-passives in -g*.¹⁷ *rigí'nyé* 'I strike' (transitive), *ridí'nyé* 'to be struck'; *rigúúba'* 'I carry' (intransitive), *ridúúba'* 'to be carried'; *rigá'pá'* 'I slap' (transitive), *ridá'pá'* 'slapped'.

Before commenting on these forms it might be well to discuss one other type of irregularity frequently encountered, namely the change of the initial consonant of the stem in the periphrastic conjugation. The periphrastic conjugation consists of the fusion of different forms of the verb 'to go' with another verb. The degree of fusion varies in the different dialects. In Tehuano and the Valle it has led to a change in the form both of the auxiliary and of the accompanying verb, but this change is only pronounced in the independent tense, always in the singular and frequently in both singular and plural. The most puzzling are the changes in the form of the accompanying verb. There we find the initial consonant, in a limited number of cases, changing to -t-, -d-, or -nd-. If these changes occurred in all the tenses of the periphrastic we might conceivably explain them as connectives but this, we have just seen, is not the case. The nature of the irregularities can best be brought out by examples:

(a) *Change of -g- to -t-*. *rigí'djé* 'I embrace', *gudí'djé* 'I embraced', *tcetí'djé* 'I am going to embrace'; *rigí'djé* 'I strike', *gudí'djé* 'I struck', *tcetí'djé* 'I am going to strike'; *rigí'bá'* 'I sew', *godí'bá'* 'I sewed', *tcetí'bá'* 'I am going to sew'.

(b) *Change of -d- to -t-*. *ridò'óbá'* 'I chew', *tcetú'óbá'* 'I am going to chew'; *ridí'ndé* 'I quarrel', *tcetí'ndé* 'I am going to quarrel'.

(c) *With -d- in the plural*. *rá'ta'* 'I lie down', *tcudú'tanu* 'we are going to lie down'; *rán'á'* 'I trust', *tcudúnanu* 'we are going to trust'. The following verb has -t- in the singular and -d- in the plural; *rá'awá'* 'I eat', *tcetáwa* 'I am going to eat', *tcudó'nu* 'we are going to eat'.

(d) *Change of -b- to -nd-*. *ribéá'* 'I take away', *tcendéá'* 'I am going to take away'; *ribéz'á'* 'I hope', *tcendéz'á'* 'I am going to hope'.

In looking over the various forms we cannot help, of course, being struck with the fact that the infixes which appear in the irregular forms of the periphrastic are identical with those encountered in the irregular perfectives. Whatever force they may have had originally has been lost, however, and today they have become idiomatically fused with certain forms of the periphrastic.

As a result of this idiomatic fusion of old prefixes with a given verb-

¹⁷ The passive stem is not always identical with that of the intransitive but in this preliminary paper I have refrained from dwelling upon this point owing to its complexity.

stem a most bewildering complexity and irregularity has been introduced into the verb. There are not a few verbs, in fact, where we must distinguish five forms of a given stem: the indefinite, the perfective, the passive-intransitive, the periphrastic singular, and the periphrastic plural. To these must be added the various tone-patterns. Owing to our fortunate possession of Cordova's grammar we know that certain of these irregularities were already in existence in the sixteenth century. That so few of them should have been levelled in the last four hundred years is a remarkable testimony to the extreme conservatism of the language.

THE VERB-COMPLEX. As mentioned before the verb is built up of a number of prefixes and suffixes fused to the stem, the former very firmly, the latter more loosely. Let us turn to the prefixes first. Unless otherwise specified they refer to Tehuano.

1. *Prefixes first position.* These all refer to tense, mode, or voice. The more important are *r*^v- for the indefinite; *b*^v- or *ko*- or *ku*- for the perfective; *-s*^v- for the future;¹⁹ *g*^v- for the subjunctive; ^{19a} *ni*- for the conditional; *k*^v- for the continuative;²⁰ *genda*- for the absolute; *b*^v- and *k*^v- for the imperative singular;²¹ *ra*-(*la*) for the imperative plural; *tc*^v- for the periphrastic independent singular;²² *tcu*- for the periphrastic independent plural; *y*^v- for the periphrastic perfective, and *z*^v- for the periphrastic future.²³

A few examples follow:

ri-djél'á 'I meet'; *bi-djél'á* 'I met'; *sa-djél'á* 'I will meet'; *gi-djél'á* 'I may meet'; *bi-djél'a* imperative singular; *ra-idjél'a* imperative plural; *tcé-djél'á* 'I am going to meet'; *yédjél'á* 'I was going to meet'; *zedjél'á* 'I will be going to meet'; *genda-ridjél'a* 'to meet'; *kadjél'á* 'I am meeting'; *kadjél'a* 'meeting'.

2. *Prefixes, second position.* These are the vowel verbal classifiers to which I have already repeatedly referred. In the Valle dialects a

¹⁹ This is a formation peculiar to the Tehuano dialect.

^{19a} This is the regular future in all dialects except Tehuano where it has been displaced by *s*^v-. It is however found in Tehuano too in the irregular futures.

²⁰ When *k*^v- is prefixed to the absolute stem as such it has the force of a participle (*kadjél'a*) 'meeting'.

²¹ Whether these two prefixes are identical with the perfective prefixes is somewhat doubtful. In all likelihood, however, they are. To judge from certain forms in the Valle and Villa Alta dialects, they are the remnants of an old three-fold expression for the imperative, i.e. a present, a perfective, and a future.

²² This is merely the transformed perfective of the verb 'to go'.

²³ Future of the verb 'to go'.

vowel prefix *-i-* with a repetitive significance can be inserted before them, a fact that Cordova had already pointed out. Examples, Za. *riantá* 'I speak repeatedly'; *riactá* 'I raise myself repeatedly'.

3. *Prefixes, third position.* These all express aspect. Only a comparatively few have survived in Tehuano, but in the Valle and Villa Alta dialects they are very numerous, and they are encountered in the Serrano and Nexitzo dialects as well, although their use in the latter two dialects is somewhat circumscribed.²⁴ Even in the Valle and Villa Alta dialects only a few of them are used extensively in the texts. In Tehuano only two are extensively employed *-s-* and *-g-* both of them with causative-transitive significance. Examples: *ru-s-á'ké* 'I make it burn' (*ri-á'ké* intransitive); *ru-g-éé* 'I make another person drink' (*rèé* 'to drink'). Cf. also above, under the discussion of transitive and intransitive stems.

In Zaachila where adverbs are frequently incorporated they occupy this position.

Examples in Za:

rá-bi-níá 'I speak with many people'; *rá-di-níá* 'I speak many times'; *rá-li-níá* 'I speak without interruption'; *rá-tci-níá* 'I speak a few times'; *rá-z-níá* 'I speak with another person again'; *rá-gi-níá* 'now I speak'; *rá-ga-níá* 'I speak with many people'; *rá-ri-níá* 'I speak often'; *rá-ca-níá* 'I speak often'; *rá-ka-níá* 'I also speak'; *ri-bi-jú'ná* 'after I ran'; *ba-k'-tú'g^a* 'I cut immediately'; *rá-si-níá* 'I make him speak'; *ru-gá'-a* za 'I cause him to bathe'.

Examples of adverbial 'prefixes' (Za.):

ba'yet'ini 'I place below' (*yet* 'below'); *ba'yét'ini* 'I place above' (*yà'a* 'above'); *bakwé't'ini* 'I place on one side' (*kwé'o* 'side'); *batcú'út'ini* 'I place outside' (*detcú'ù* 'outside'); *banyú'út'ini* 'I place within' (*nanyú'ú* 'within').

THE VERB STEM. We have had occasion to mention the verb stem and its phonetic characteristics before. Its position is immediately after the prefixes, third position. There are three fundamental tone-patterns and quite a number of subsidiary ones. The fundamental tone-patterns are illustrated by the absolute, by the first singular with the vowel form of the pronominal affix, and by the second singular with the vowel form of the pronominal affix. The stem without pronominal affixes, the imperative, and the passive follow the absolute; the third singular and plural, and the first plural follow the first singular; and the

²⁴ Cordova in his grammar mentions a few of these (*Arte* 52-4). In his dictionary there are quite a number.

second singular stands by itself, except that it is inconsistently followed by the second plural.

SUFFIXES. There are two distinct types: those that are firmly fused to the stem, and those that are, to all and intents and purposes, postpositions, although many of them do not occur as independent stems today, nor do they appear in Cordova's dictionary. In addition we find a large number of nouns used as postpositions with a definitely instrumental significance.

Suffixes, first position. Only the more important are given.

si- 'after'; *guðáo-si-vé* 'after he ate'.

si- 'loosely'; *rindíbi-si-á* 'I tied loosely'.

sá- reciprocal; *laodí-sá-á* 'I give to him and he gives to me'.

ði- negative; *ké zawedíá* 'I will not eat'.

ka- 'immediately'; *guná'ase-ka-vé* 'he seized immediately'.

ka- plural; *bianá'-ka-vé* 'they left'.

Suffixes, second position. Here we find all the personal pronominal affixes. The fusion between the stem and the vowel forms of the first and second persons singular is very strong, that between the stem and the other affixes is not so close. Particularly is this true of some of the plural affixes and the consonantal form of the second singular. For examples of the pronominal affixes cf.

Suffixes, third position: incorporated adverbs. As mentioned above these are really adverbial postpositions. They always follow the affixed pronouns. Examples:

tipa 'with force'; *ribidjítá-tipa* 'I shout with force';

cátá 'much', intensively, *rao-cátá* 'he eats too much'.

tátá 'much', *retátá*, 'he drinks too much'.

djítátá 'intensively'; *ruyadjítátá*, 'he dances intensively'.

tété 'for the sake of'; *ràòt'ékè*, 'he eats for the sake of'.

lá^{24a} interrogative; *magháólá*; 'have you eaten?'

yá 'where?'; *para tcáo'yá* 'where are you going?'

Nominal postpositions. They are definitely wavering in position, sometimes following, sometimes preceding the pronominal affixes. They are, in other words, on the verge of becoming definitely incorporated.²⁵ Examples:

rug'lóá-loá 'I seize with my eye' (lit. 'I seize eye-my').

rug'lóá-íkè 'I seize with head'.

²⁵ That is, if the reverse has not been true and they are not losing their older incorporated character. In certain dialects, for instance, nouns are definitely incorporated and they then occupy the same position as these semi-incorporated nouns.

rugó'lóá-dítéké 'I seize with my shoulder'.
rugó'lóá-cí'ké 'I seize with my shoulder'.
rugó'lóá-cíbé 'I seize with my knees'.
rugó'lóá-diágá 'I seize with my ear'.²⁶
rugó'loroálù 'you seize with the mouth'.
rugó'lonyé'é 'I seize with the foot'.
gub'oru'avé 'he seized with the mouth'.

THE NOMINAL STEM. There are two types of nominal stems, true nouns and nominalized verbs. The former have few affixes except the possessive prefix, the plural prefixes and suffixes, and the pronominal suffixes. The latter have, in addition, a number of strictly nominal prefixes such as *na-*, *ni-* and *géndá-*. The formation of agentive nouns from verbs is extremely irregular and is not always clear to me. Cordova has treated the subject at some length (cf. *Arte* 22ff.). *na-* is more specifically the adjective prefix. As in the case of the verb the noun has a number of distinct tone-patterns, the main contrast being, of course, that between the absolute and the others.

THE PERSONAL PRONOUN. Zapotec has two sets of personal pronouns, a subjective and an objective series. In Tehuano the distinction between the two is on the point of being lost, but it is quite clear in the Serrano, and particularly in the Villa Alta and Nexitzo dialects. Owing to the fact that the objective forms of the first and second singular in many Valle dialects and in Tehuano are vowels and the subjective forms of the first and second singular end in a vowel that is frequently identical with it, it has been customary to claim that the objective affixes are simply contracted forms of the subjective forms of the pronoun. However this assumption is by no means justified. In fact the Serrano, Villa Alta, and Nexitzo forms of the first person singular militate strongly against this interpretation, for there we find three forms, the vowel affix used as the subjective, a definitely contracted form of the independent pronoun used as the objective, and another form which is possibly a contraction of the independent—although this is not at all certain—used with a group of semi-reflexive verbs.²⁷

²⁶ It is just possible that all these forms really end in the contracted first pronoun. In that case of course they are all to be interpreted as in the first example.

²⁷ As a matter of fact in very few dialects is the vowel of the independent form of the second singular the same as that of the vowel form of the suffixed pronoun, and the same holds for the first singular although to a more limited extent. In addition all of the Valle dialects as well as Tehuano have two forms for the second singular in use for every verb; and this, likewise, speaks against the assumption of one being the contracted form of the other.

All dialects distinguish between the exclusive and the inclusive first plural, although today these two forms are being confused in many instances. Cordova does not mention this differentiation, although it must have existed in his day. In some dialects like Zaachila a bewildering number of forms have developed—a dual, a plural, and a paucal—not to mention the polite forms.²⁸ Even in Tehuano where the exclusive and inclusive first plurals are not always kept apart there are consistently four forms, an exclusive and inclusive plural, and an exclusive and inclusive dual.

Perhaps the most interesting development within the pronoun is the differentiation of the third person. In the Juchitan and Ixtaltepec subdialects of Tehuano only three forms are found—for human beings, animals, and things—but in the Tehuano subdialect of Tehuano the older five-fold differentiation still occurs namely that for men, women,²⁹ animals, things, and holy objects. In many subdialects there is even another category, that for small or young animate objects ('creatura'). Examples of the pronominal series:

Tehuano	<i>Independent</i>	<i>Subj.</i>	<i>Obj.</i> ³⁰
I	ná'	-	-á', -é'
thou	lì	-lù	-ù (ò, ò')
he	lá·avé	-vé	-lá
she	lá·acé	-cé	-lá
it	lá·aní	ní	
it (ani.)	lá·amé	-mé	
it (sac.)	lá·nì	-nì	
Zaachila			
I	ná', narí'	-á'	
thou	lì, yùbu ³¹	-ù	
he	lá·p·'	-p·'	
she	lá·c·'	-c·'	
it	láaní'i	-nì	
it (ani.)	lá·m·'	-m·'	
it (sac.)	lá·nì'	-nì	
it (sma.)	lá·bnin·'	-nin·'	

²⁸ Unless we are really dealing with the preservation of a differentiation lost in many other dialects.

²⁹ In Tehuano this form has been interpreted secondarily as having reference to something depreciated (*para burlarse*), but in Zaachila it is the regular form used when referring to women.

³⁰ In the objective series all forms not indicated mean that the independent pronoun is used.

³¹ Polite form.

Zaachila	<i>Independent</i>	<i>Subj.</i>	<i>Obj.</i>
we (inc. d.)	núure'	-n·re'	
we (exc. d.)	núukare'	-nkare'	
we (inc. p.)	dunú ^u ni	-dun	
we (exc. p.)	dunú ^u ni	-dun	
we (inc. pa.)	dunú ^u re'	-dun·re	
we (exc. pa.)	kanú ^u re'	-kan·re	
you (d.)	là ^a , làit'		
you (p.)	là·are		
you (pa.)	là·iyìð'		
Jaltianguis ³²			
I	neté'	-á'	-té', nté'
thou	lù, kwínu ³³	-lù	-lù, -à (rare) ³⁴
he	la·bi	-bi	
we (inc.)	netú	-tú	
we (exc.)	ri'u'	—	
you	lèvi-ì'	-lè(?)	

Possessive Pronouns. The possessive pronouns are identical with the personal. Originally—and in some subdialects this still holds true—accidental and essential possession were carefully distinguished, the latter being expressed by a special possessive prefix and the suffixed pronoun, the former by the suffixed pronoun alone. Some subdialects, like Jaltianguis, do not employ the special prefix and distinguish between the two types of possession by using the independent series for the first. Others like Yalalag have a threefold differentiation: for body-part nouns, for relationship terms, and for all others.

Examples:

Tehuano	<i>Independent</i>	<i>essential</i>	<i>accidental</i>
my	stiné	-á'	c- á'
thy	stinù, stìù	-lù, -ù	c- lù, -ù
his	stivé	-vé	c- vé
Jaltianguis			
my	kyá' (kyé')	-á'	— —
thy	go'ò	-lù	
his	koo (kekúnu)	-kúnu	

³² I am only giving one form for the third person, but all categories are represented.

³³ Polite form.

³⁴ In all other forms the independent is used.

Yalalag ³⁵	<i>Independent</i>	<i>essential</i>
my	kiá', tciá'	c- á'
thy	kiú, tciù	c- ù (à)
his	kyúu, tciúbú	c-

EXPRESSION OF PLURALITY. Plurality is very inconsistently expressed in Zapotec. In some dialects it is almost negligible, being limited entirely to the pronouns, while in others it is expressed in the pronoun, noun, and verb. This is particularly true for the Valle dialects. As we have pointed out before it is more than likely that certain of the functional and semi-petrified prefixes had originally a plural significance.³⁶

In order not to take up too much space I will select all my examples from Zaachila where the expression of plurality is quite marked.³⁷

In Zaachila the nouns form their plural by prefixing *re-*. Examples: *büik* 'dog', *rebü'ik* 'dogs'; *yia* 'stone', *re'yia* 'stones'. For the expression of pronominal dual, paucal, and plural cf. pp. 79-80. In the imperative both dual, paucal, and plural prefixes are found. They are *yul-* for the dual, *yultco-* for the paucal, and *re-* for the plural.

In Talea the plural of nouns is expressed by suffixing *-si* or *siáñ*. Examples: *bwín-e* 'man', *bwínisi* 'men'; *bél-á* 'snake', *bél-asiáñ* 'snakes'. In Serrano and in the Zaachila subdialect of Valle the nominal plural is formed by prefixing *ka-*.

EXPRESSION OF GENDER. This is a fundamental trait of all Zapotec dialects except Tehuano. We have already pointed out the remarkable differentiation of gender in the third person pronoun (cf. 79). The existence of a specific sex gender has apparently escaped the notice of all students of the language from Cordova to de Angulo, probably due to the fact that in quite a number of Valle dialects it has either disappeared entirely or is only expressed by a weak whispered vowel. In Zaachila, however, it is clearly expressed not only for the third person but for all the others as well. In Tehuano it does not exist at all; in Serrano it has been lost in the second person; in Villa Alta and Nexitzo dialects it holds for all persons. Its expression in the imperative is very irregu-

³⁵ In the Villa Alta and Nexitzo dialects the possessive forms with the possessive prefix are used as the objective.

³⁶ That is, iterative, distributive, repetitive, etc.

³⁷ The subdialect of Zaachila is so conservative in most of its features that it is but natural to assume that the expression of the plural there represents an older trait of Zapotec.

lar in all the dialects. It was found in Zaachila, Mitla, in the Serrano, and in the Villa Alta dialects. It is also found in certain nouns such as relationship terms and animal names. A few demonstrative and interrogative pronouns distinguish between the animate and the inanimate.³⁸

Examples of verbs:

Zaachila: *nari* 'I' (m.), *nari'a* 'I' (f.); *li* 'thou' (m.), *li'a* 'thou' (f.)

Mitla: *bakwáni'*^e 'kick!' (m.), *bakwá-ni'*ⁱ (f.); *bacál* 'open!' (m.), *bacá-l* (f.); *vazéel* 'pull!' (m.), *vazeel'* (f.); *gutías* 'jump!' (m.), *guties* (f.); *gú'*^a 'drink!' (m.), *gú'e* (f.); *gujún'*^a 'I ran' (m.) *gujún'* (f.).

Jaltianguis: *'uδú* 'guard!' (m.), *'uδúa* (f.); *bedji'ge* 'push!' (m.), *bedji'ga* (f.); *gúl-é* 'sing!' (m.), *gúl-à* (f.); *cíné* 'seize!' (m.), *cínà* (f.); *gú'ú* 'drink' (m.), *gá'ú* (f.); *bidzia* 'jump!' (m.), *bedzia* (f.); *liudzia* 'jump!' (m.pl.); *liudzia!* (f.pl.).

néde 'udjígé 'I pushed', *néda* 'udjígá (f.); *néde* *gúlé* 'I say', *néda* *gúlá* (f.).

Yalalag: *néde* 'I' (m.), *néda* (f.); *lú* 'thou' (m.), *lú'e* (f.); *néde* *wásé* 'I sleep' (m.), *néda* *wásá* 'I sleep' (f.); *néde* *djejúnxé* 'I run' (m.), *néda* *djejúnxá* 'I run' (f.).

Examples of nouns:

Zaachila: *jí'ina* 'daughter', *jí'inu'u*³⁹ 'son'; *büik*^a 'dog', *büika* 'bitch'; *jí-t* 'cat' (m.), *jí-t'* 'cat' (f.); *vitci's* 'fox', *vitcá's* 'vixen'.

Mitla: *vá'to* 'fox', *vá'tq* 'vixen'; *békwo* 'dog', *békva* 'bitch'; *jí-δ* 'cat' (m.), *jí-δa* (f.).

Jaltianguis: *jí'ini* 'son', *jí'ina* 'daughter'; *bizá'nu* 'brother', *bizá'na* 'sister'.

Yalalag: *bjidje* 'fox', *bjidja* 'vixen'; *ptcín* 'deer', *ptcín-a* 'doe'; *bétcxe* 'turkey' (m.), *bétcxa* 'turkey' (f.).

Talea: *büiku* 'dog', *büika* 'bitch'; *büizu* 'fox', *büiza* 'vixen'; *jí-iδu* 'cat' (m.), *jí-iδa* (f.).

*Examples of demonstratives:*⁴⁰

Tehuano: *ka* 'that' (ani.), *nga* 'that' (inani.); *riká* 'that' (ani.), *ndiká* (inani.)

³⁸ This was already pointed out by Cordova.

³⁹ These -u forms are not to be confused with the vowel form of the second singular which is always -ù.

⁴⁰ For additional examples cf. Peñafiel, *Gramática de la Lengua Zapoteca* 19.

TEHUANO TEXT¹

<i>ndá'ani'</i> In	<i>tí'</i> ² a	<i>gí'idjì</i> pueblo	<i>bibá'n'</i> ³ lived	<i>tí'</i> a	<i>dúnavé'</i> very	<i>*pobre</i> poor
<i>ng'wícké'</i> ⁴ man-that	<i>né'</i> and	<i>guná'aké</i> wife-that	<i>rúnikavé'</i> ⁵ made	<i>stá'le</i> much	<i>djì'i, nya'</i> work	
<i>*para</i> in order that		<i>ngán'da'</i> be able	<i>ngó'kavé'</i> ⁶ eat-they	<i>né'</i> with	<i>tcó'na'</i> ⁷ three	
<i>jí-i, nyikavé.</i> children-theirs.	<i>djì'i, nya'</i> Work	<i>stí'</i> of him	<i>ng'wícké</i> man-that	<i>rietópavé'</i> ⁸ goes to gather-he		
<i>'ya'ga.</i> wood.						
<i>tí'</i> One	<i>djì'</i> day	<i>biréé'</i> ⁹ left	<i>ng'wícké</i> man-that	<i>se'tópavé'</i> ¹⁰ should gather-he	<i>'ya'ga</i> wood	
<i>ndá'ani'</i> in	<i>gí'cì</i> mountain-forest	<i>'ma'</i> considerably	<i>sít'úké</i> far-that	<i>nadjíticivé'</i> ¹¹ angry-one-he		
<i>*pó'rt'v'í'</i> ¹² because	<i>nú'uvé</i> was-he	<i>*pobre.</i> poor.	<i>gudjivé'</i> ¹³ Spoke-he	<i>cé'lavé,</i> wife-his,	<i>'tanke'</i> 'O that	
<i>*laðu'</i> ¹⁴ where	<i>zid'ri'</i> ¹⁵ I will go there	<i>tí'</i> a	<i>binidjába'</i> devil	<i>né'</i> with	<i>djì'ta'</i> cloven-hoof	
<i>tí'</i> one	<i>g'víná'aba'</i> ¹⁶ I might ask	<i>lá'avé</i> him	<i>stá'l'ε</i> much	<i>bidjítci</i> money	<i>néká</i> even although	
<i>*despues</i> afterwards	<i>tcenévé'</i> ¹⁷ should carry-he	<i>ná'</i> ¹⁸ me	<i>ra''</i> to	<i>gabidà.'</i> hell.'		
<i>gúní'isivé'</i> ¹⁹ After had said-he	<i>ndí'la'</i> ²⁰ this	<i>zévé.</i> went-he.	<i>*ora</i> When	<i>nú'uvé</i> was-he		
<i>né'</i> with	<i>*xatcaké</i> hatchet-that	<i>lù'</i> in	<i>ná'vé</i> hand-his	<i>ngu'ka</i> made itself	<i>*apareser'</i> ²¹ appear	
<i>lá'avé</i> (to) him	<i>raké</i> there	<i>tí'</i> a	<i>ng'wí</i> man	<i>n'é'</i> with	<i>*kola</i> tail	<i>n'é'</i> and
						<i>djì'ta'.</i> cloven-hoof.
<i>*Ora</i> When	<i>mbi'yávé'</i> ²² saw-he	<i>lá'a</i> him	<i>ké</i> not	<i>nidjibivé.'</i> ²³ the afraid-one-he.	<i>la'agá</i> On the contrary	

<i>gund'ava'</i> asked	<i>di'dja</i> ²⁴ word	<i>lá'a</i> ²⁵ him	<i>n'é</i> with	<i>cian'a</i> , brazenness,	<i>'tu</i> 'who	<i>li'i?</i> you?
<i>bin'djába'?</i> Devil?	<i>ci'</i> What thing	<i>kánayú'nú</i> ²⁶ doing-you	<i>*ladu</i> place	<i>ri'?</i> here?	<i>*entonses</i> Then	
<i>ng'wóké</i> man-that	<i>bi'ini'</i> made	<i>*kontestar</i> ²⁷ *answer	<i>lá'avé</i> , him,	<i>'na'ángá</i> ²⁸ 'I am	<i>bin'djába'</i> devil	
<i>ni'ruyúbilù</i> ²⁹ that look you for.	<i>pabiya'</i> How much	<i>bidjítci</i> money	<i>nakt'iyelù</i> , the needing-you,			
<i>ná'a</i> I	<i>sudí'eni</i> ³⁰ will give it	<i>li'i</i> , you,	<i>*pero</i> but	<i>siú'ukanu</i> , ³¹ we will go	<i>gabid'</i> hell	
<i>nagá's'i.</i> immediately after.'	<i>guná'asekavé</i> ³² Seized immediately	<i>*de</i> of	<i>dji'ibi</i> fear	<i>n'é</i> and		
<i>gú'djivé</i> saw-he	<i>deké</i> that	<i>kádi</i> not	<i>rakalá'djivé</i> ³³ wished-he	<i>gastí</i> . nothing.	<i>*pero</i> But	
<i>bin'djá'baké</i> devil-that	<i>gu'ka''lá'dji</i> wished	<i>n'éné</i> ³⁴ he would take	<i>lá'avé</i> him	<i>*a la fuersa</i> . by force.		
<i>*Ora</i> When	<i>bi'yavé</i> saw-he	<i>*deké</i> that	<i>'ma''</i> indeed	<i>djandí'nila</i> certain-it-was	<i>bi'ini</i> made	<i>*rogarvé</i> ³⁵ ask-he
<i>bin'djá'baké</i> devil-that	<i>*deké</i> that	<i>nun'dá'a</i> ³⁶ should free	<i>lá'avé</i> him	<i>né'</i> and	<i>'ma''</i> indeed	<i>*nunka</i> never
<i>nibige'ta</i> ³⁷ would return	<i>n'etenalá''djivé</i> ³⁸ remind himself-he	<i>*de</i> of	<i>lá'a</i> . him.			

¹ This text was obtained from an inhabitant of Juchitan.

² Article form of the numeral *túbi*.

³ Perfective form of the regular verb 'to live' without affixed pronoun because the subject is indefinite.

⁴ The demonstrative *-ké* has in Tehuano practically become an objective case-ending for animate nouns.

⁵ Indefinite form of verb 'to do', third person plural. Perfective first sing. *bi'né*. *-ka-* is plural suffix; *-vé* pronominal affix for third person.

⁶ Perfective of 'to eat'. In the Juchitan subdialect the irregular perfective has apparently disappeared. In the Tehuano subdialect it is still preserved as are all the other irregularities of this verb. (*ra'ao* abs., *ra'awá'* indef. first sing., *godá'awá'* perf., *gá'awá'* fut., *godáo'* imper. sing., *lagò* imper. plur., *kayó'* part., *ka-yáwá'* cont., *icetáwa* periph. sing., *tcudo'* periph. pl. *riòó'-nú* first pl. indef.).

⁷ Also heard as *g'w'na*.

- ⁸ From *ridopà* intrans., *rutópà* trans. 'to gather' and auxiliary *r-ià* 'to go'.
- ⁹ Regular verb (*rirèè* abs. *rirèè* indef. first sing.).
- ¹⁰ *se-* fut.
- ¹¹ *na-* nominal-adjective prefix.
- ¹² Notice change of Spanish *porque*.
- ¹³ Irregular perfective from *ràbi* 'to speak' (*ràbèè* indef. sing. first, *sabèè* fut., *gabèè* subj., *gùdji* imper. sing., *lagàbi* imper. pl., *icégticé* periph. sing.).
- ¹⁴ Change of meaning of Spanish loan-word.
- ¹⁵ Composition of future of verb 'to go' with adverb *ri* 'there'.
- ¹⁶ Regular verb, literally meaning 'to beg'. It appears only with *i-* prefix. (*rina* ba abs., *gu-* perf., *sa-* fut., *gwi-* subj.).
- ¹⁷ Periph. sing. from *rin* 'to carry'. This is one of the few verbs that retains its *i-* vowel throughout all the forms, the periph. excepted.
- ¹⁸ Independent form of the pronoun used as objective.
- ¹⁹ Regular perf. of verb 'to say'. *-si-* 'after'.
- ²⁰ Inanimate form of demonstrative. Animate form is *rila*.
- ²¹ Typical example of verb-noun composition and displacement of Zapotec noun by Spanish infinitive. *gu'ka* is the perf. of *ra'ka*, and *ra'ka* is the irregular passive-reflexive of *rúni* 'to do'.
- ²² Perf. of *rúiya* 'to see'. It has an irregular passive *riwin* 'l'.
- ²³ *ni-* agentive nominalizer.
- ²⁴ An example of verb-noun stem composition. This is the regular way of expressing the verb 'to ask' (Span. *preguntar*).
- ²⁵ Independent form of pronoun used as objective.
- ²⁶ *kana-* cont. prefix; *-y-* 'glide'; *-un* 'to do'; *-ù* subjective form of second person pronoun.
- ²⁷ Example of verb-noun stem composition and displacement of original Zapotec noun by Spanish infinitive.
- ²⁸ This is simply the personal pronoun with suffix of unknown force. Possibly *-nga* is simply a variant of demonstrative *ka*.
- ²⁹ *ni-* 'the one'; *ruyábi* indef. form of verb 'to look'; *-lù* consonantal form of second singular.
- ³⁰ Abs. *rudèè* 'to give', perf. *bi-*, fut. *su-*, imper. pl. *laodi*; *-ni* 'it'.
- ³¹ From irregular verb *riè* 'to go'. First pl. fut.
- ³² Perf. from *rind'asè* 'to seize'. The *-ka-* is a suffix meaning 'immediately'.
- ³³ Compounded stem from *ra'ka* reflexive form of *rúni* 'to do' and *la'dji* 'heart'.
- ³⁴ Conditional form of *rinè* 'to carry'.
- ³⁵ Example of stem composition.
- ³⁶ From *rundà'a* 'to free'. The intrans. is *rindà'a*. This is the conditional.
- ³⁷ Conditional. It is used idiomatically in the sense of 'again'.
- ³⁸ Conditional of *rietenala'dji*. This is a compound of *rietè* 'to place' and *lã-dje* 'heart'. *-na-* is nominal prefix.

BOOK REVIEWS

Relative Frequency as a Determinant of Phonetic Change. Pp. 95.
By GEORGE KINGSLEY ZIPF. (Reprinted from the Harvard Studies in Classical Philology, vol. 40, 1929.)

In this, his doctoral dissertation, Zipf seeks to prove that the more frequently occurring a sound is in any language, the more likely it is to be subject to phonetic change, since through its frequency it is less characteristic than the more infrequent sounds, and therefore is less valuable in the communication of thoughts from one speaker to another.

As a preliminary to this theory of the *raison d'être* of 'spontaneous' phonetic change, he takes up the problem of syllabic accents, notably that variation shown in the verb forms. Thus he finds that in verb stems which show ablaut variation in the present tense system (type Skt. *dadhā'mī*), the strong form of the root is used in the present singular active, and the weak form elsewhere: the present singular active is in its three persons much the commonest in use, and the endings therefore do not need special distinctiveness through the accent; while in the rarer forms the dual and plural present active, all the imperfect active, all the present and imperfect middle the ending is necessary for distinction, and therefore bears the accent for clearness. The varying ablaut-grades of the root are the automatic corollary to this status of the accent. Zipf's argument is supported with statistics for this and other comparisons, taken from the Rigveda, Herodotus, Horace, and modern German.

But it may be objected that if the present singular active is so much commoner, it is much more important to distinguish the first person singular from the second and the third, than to distinguish the singular *en bloc* from the other less common forms, and the less common forms one from another. Further, it is noticeable that irregular forms, that is, the regular product of phonetic changes, are common in the common words, not in the common forms: thus the presents of Latin *sum*, *volō*, *eō* are irregular throughout, but the presents of most verbs are regular. Frequency of use affects the common verbs irrespective of the amount of use of the several forms of each verb, and not the common tenses or persons in all verbs.

I am not convinced therefore that Zipf is right, despite the statistics, when he concludes this section with the following summary (34): 'It cannot be by chance that a difference in accent is regularly attended by a difference in relative frequency. Moreover, theoretically it is certainly to be expected in the language of man, as in human expression in general, that his tendency toward laziness (*Trägheitsgesetz*) will prevent his accenting any element in language which his hearer will understand without accent. Nor is the hearer so likely to understand any element of language unaccented so readily as an element of language which occurs frequently.'

From this Zipf goes on to the problem of phonetic change. His theory is that when a given sound becomes unduly common in the spoken speech, it loses its value for the conveying of thought to the hearer, and therefore is more subject to change than is an uncommon sound. One of his main points is that the voiceless stops are more common than the voiced stops; the voiceless stops are therefore more likely to be changed. He gives statistics from ten modern languages and three ancient (Sanskrit, Greek, Latin). But when one examines his figures, certain other aspects stare one in the face. The sound [t] is the commonest of the stops; but [d], which is voiced, averages a slightly higher frequency than the voiceless [k], and is much more frequent than the voiceless [p]. Zipf's interest seems to center about the discovery of a cause for the phenomena of Grimm's Law; and this implies certain analogical extensions from [t] to [k] and [p], wherein extension by analogy seems to lack a point of support. Further, it is a fact that the rarer sounds are likely to change to those which are commoner and therefore more familiar to the child learning his mother tongue; witness the redistribution in Germanic of the products of the IE labio-velars, as well as the development of these same labio-velars in other branches of IE. There is also the relative persistence of [r] and [n] in most languages, though these are both common sounds.

I take now one specific instance, which is a matter of phonetics, though it is given in the section on morphology (32): '*Tempus* and its like retained the *s* in the nominative singular, because it was roughly as frequently used as the forms in *-r*. *Labos*, however, became *labor*, because the forms in *-r* were nearly three times as frequent, and levelled the *r* throughout accordingly.' The true explanation is, I think, somewhat otherwise. In the type *labōs labōris*, the vowel preceding the the *s/r* is the same, and this facilitates the analogically extended rhotacism in *labor*. In *tempus temporis*, as well as in *genus generis*,

the vowel preceding the *s/r* is different, and this inhibits the extension. The proof of this explanation is seen in *fulgus fulguris*, a word of the same type as *tempus*, but with the second vowel assimilated to the first in the oblique cases: here, because the preceding vowel is the same, the *-s* of *fulgus* (attested in Fest, 92 M) became *-r*, though this is a neuter noun. In like fashion, in comparatives, **meliōs* became *melior* after *meliōris* etc., but the neuter *melius*, with *-u-* before the critical consonant, kept the original *s*.

Zipf has dealt with a considerable number of general problems, and his argument is at first sight plausible and attractive; but problems of phonology and morphology are not to be solved *en masse* by one grand general formula. Every problem, small or large, must be considered *per se* in all its varied aspects, just as in each and every word there is, or may be, a separate problem of etymology, not necessarily solvable along purely general lines. True, much used words and phrases show increased phonetic wear; it does not follow that the same sounds in other less used words are equally affected. Pebbles of the same size and shape will not wear to the same extent, if they are subject to different amounts of tossing by the waves.

ROLAND G. KENT

Neuaufbau der Grammatik. Pp. viii + 105. By THEODOR KALEPKY. Leipzig and Berlin: B. G. Teubner, 1928.

The purpose of Kalepky's little book is to free the study of language from the traditional basis of supposed logic and establish it on the firmer basis of psychology. Accordingly he finds current grammatical terminology and classification quite contradictory and suggests both new terms and definitions. He does, however, recognize the value of established terms and therefore employs these for our convenience by the side of the new terms he proposes.

Kalepky assumes, rightly enough, that it is unnecessary in our day to point out that language is not built up altogether logically. He is concerned rather with some errors that still remain. This includes the classification into ten parts of speech, of which he finds (67) three are according to meaning, three according to their relationship to some other class of words, two according to their real or supposed functions, and two according to their position.

Language is not only the spoken word, including for Kalepky intonation and accent, but also gesture and expression; e.g. 'There!' receives its significance almost entirely from the pointing finger, while

hardly a phrase is spoken in the ordinary business of the day that is not accompanied by some expression of face or hands. Accordingly a science concerned only with words and what they alone express is of necessity one-sided and insufficient.

Kalepky's definition of the sentence is: the smallest communicable whole (Mitteilungsganze). The nod of the head is as complete an answer as a sentence of words. Subject and predicate are not parts of a sentence; but subject is the phenomenon mentioned, predicate the discourse about it. The common division into logical, psychological, and grammatical subjects and predicates Kalepky likens to the Ptolemaic system of cycles and epicycles. Instead he chooses the terms 'Träger' and 'Verlauf'. 'Es ergibt sich also als wahrer Sachverhalt, als der der Enunziation des Satzes im Geiste des Sprechenden vorhergehende, ihr zu Grunde liegende Vorgang: eine Analyse des Vorstellungskomplexes, bei welcher der "Verlauf" zum Mittelpunkt wird, alle anderen Glieder aber ihre Rollen je nach ihrer Beziehung zum Verlauf (als Träger, Erleider, Ziel, Herkunft, Werkzeug, Weise, Grund, Ort, Zeit) zugewiesen erhalten' (26). The difference between the noun and adjective Kalepky finds in the fact that the noun represents the thing in its completeness, the adjective only one side of it. Therefore he calls these 'Vollbegriff' and 'Knappbegriff'. These terms he applies also to verbs and adverbs. All these parts of speech can be expanded into phrases and clauses without Kalepky's terminology becoming less applicable.

The criterion of the *sentence*, however, is its content of reality or actuality (Wirklichkeitsbestand). To be sure, it may represent but a memory, a phantom, or even an intentional lie; it must, however, standing by itself as an independent whole, be expressed as reality. Unreality can be expressed only as a part of a sentence, say, a dependent clause. Since German makes no lexical distinction between 'sentence' and 'clause' (Satz, Nebensatz) our author slides rather gently over the objection we might make: Although a sentence as the smallest communicable whole must refer to reality, the ear-marks of a clause may still be subject-predicate. But this really has been taken care of: a clause that is not a sentence is part of a sentence; this sentence-part may be expressed as a single idea, as 'a boy', 'crash', or as the subsumption of the parts derived from the analysis of an idea, as 'John, the neighbor's son, who brings the papers' or 'a window was broken in the front room'. The second and last examples may be independent, i.e. sentences, the two others may not; all four may be used as parts of sen-

tences; as: 'I heard a crash'; 'It went crash'; 'I heard that a window was broken in the front room.' The important thing is: Träger and Verlauf (subject and verb in the common terminology) are not necessary for complete sentences, but only the expression of the connection with reality. This eliminates all discussion of impersonal verbs and one-part sentences.

There are many interesting incidental observations. These will be the most interesting part of the book to some. The style is simple and clear, but the brevity coupled with an occasional irrelevant, though clever remark, does not always reveal the transitions on first sight.

In the chapter 'Différentes espèces de mots' Vendryes suggests that the Chinese divisions of language may after all be the more fundamental ones. 'Noms et verbes représentent les *éléments vivants* du langage par opposition aux *outils grammaticaux* On voit qu'une classification générale des mots d'une langue n'est pas impossible, sur un plan que la logique justifie et que la grammaire des principales langues ne contredit pas'. (*Le Langage* 158.) Kalepky's system is almost the Chinese: living words (Verlaufsworte), dead words (Gegenstandsworte), and empty words. Empty words are represented in Kalepky by Verhältniswörter, words of relationship (prepositions), Markierwörter, words to indicate the unity of a word-group (conjunctions) and Schlackenwörter, words that have lost their significance but are used to round out a phrase so that it may correspond to an approved mold as 'It rains'. The Chinese term 'living word' suggests similar importance to that attributed to Verlaufswort by Kalepky, but a different explanation. Kalepky says: 'Nicht also weil der Verlauf etwa das unwichtigste Glied in dem Ganzen des Vorgangs, des Sachverhalts wäre . . . kann seine Bezeichnung so leicht unterbleiben, sondern weil er sich, vermöge der Kasusendungen bzw. "Präpositionen", so überaus lebhaft und deutlich schon in den Bezeichnungen der andern Glieder spiegelt'. (93). This would hardly hold for Chinese, where, to be sure, Verhältniswörter exist, but are often omitted (according to our point of view), leaving the relationship to be gathered from the context, especially from the living words. Rather, I would say, it is the greater demand that motion makes and has always made on man's attention that has made the words indicating it important and drawn other verbs in their wake.¹

R. E. SALESKI

¹ Discussion of this point in my *Die Mittel der sprachlichen Mitteilung* 2,315.

[Cf. also the review by Anneliese Bretschneider, *Idg. Forsch.* 47. 357-62 (1929), which ends: '—ist einer der vielen Irrtümer und Inkonssequenzen, von denen das ganze allzuoft an der Oberfläche bleibende Buch durchzogen ist.' G. M. B.]

La Grammaire des Fautes. Pp. 317. By HENRI FREI. Paris: Geuthner, 1929.

Our interest here is not in the instances of 'faulty' French, but in the author's method of studying the language of today. He has produced one of the most original books of the Geneva School, which promises also to be one of the most fruitful. The Geneva School (de Saussure, Brunot, Bally, Sècheyay) is interested not in the history of language as such but in the value of language to the individual speaker and hearer and no doubt to the society concerned. I will not say that Frei has given us *the* method for this study, but he has given us a method.

His method is this: to compare popular speech with approved speech, to gather from this an idea of the direction in which language is moving. He contents himself, however, entirely with the French language. Why, he asks, do people speak 'incorrectly'? and he answers his question: not for the mere joy of being incorrect, but for a reason, a purpose, of which, to be sure, they may be quite unconscious. The functioning of a language is subject to few requirements ('besoins') varying little from one language to another. These requirements or needs are in the main five, which five make up the five chapters of Frei's book: 1) assimilation, 2) differentiation (or clearness), 3) brevity, 4) invariableness, 5) expressiveness. We are surprised that, coming out of the School of Geneva, expression should be only one of five apparently equal parts, and even more surprised to find later that the author has very little to tell us (at least of general interest) under this head at that. It is mainly in satisfaction of one of these requirements, which, to be sure, often conflict with each other, that new and 'incorrect' forms of language are invented. This thesis he tries to make clear and convincing with multitudinous examples from popular French.

The most valuable—and also the longest—chapter is the one on invariableness. Frei quotes Bergson—it is to our author's credit that he does not fear the philosophers—: animals have certain signs which represent to them certain things; the characteristic thing about human language is that the linguistic sign can be moved about from one object to another, from one use to another. This is why the categories of thought and of language do not coincide: the same linguistic category may often represent several categories of thought, thus relieving us of the necessity of clogging our memory with too many linguistic forms. Apropos of this Frei finds that languages of wide communication, such as, of course, French, decrease in both vocabulary and grammatical forms. But Frei makes a more important discovery still in this connection.

The logical categories are the forms in which the human mind observes the 'objective' world. It is some time since we have found out that these categories do not coincide with those of language. The reason for this is, that language is not governed only by our objective view of things but by the way we feel about them. It may be the passion of the moment or an acquired habit of thought that leads us to look at things and speak of them as we do, while we may or may not happen to be conscious that this effect is produced on us by something besides the thing itself. This I say, we have been gradually finding out during the last century. And so we have come to substitute for the older logical a psychological view of language. We have said: language does not tell us how the world is, nor even how we think it is, but how we feel about it; and we have expected the psychic categories to agree with the linguistic. But here our inference is wrong, as Frei points out: neither do the psychic categories coalesce with the linguistic. There are two changes from reality to language. First, reality is made to conform to our human thought and feeling—this covers both the logic and psychologic transformations which no doubt really take place together as one; then, it is further adapted to the forms of our language. It is quite right: each of these things has been known by itself before, but what has not been pointed out is that the mobility of linguistic signs required by practical necessity is a law that runs counter to our psychic classifications and therefore produces in the language a classificatory system necessarily different from the psychic one, a system for its purposes, i.e., those of language, superior to the psychic one, whence it is derived, not as heretofore generally tacitly assumed, inferior. Thence, in practice, is derived the reduction of grammatical forms and of synonyms, the interchangeability of parts of speech. Most of the chapter then is concerned with showing how in passing from one use to another (e.g. direct to indirect discourse) the variable-ness, of form, word, phrase, word-order, is reduced.

It is all the more remarkable to find our author defend the grammatical categories as '*réellement conçues comme telles par les sujets parlants*' (136). This leads him soon to assert that: '*toute syntagmatique se ramène, statiquement aussi bien qu'historiquement, au rapport initial de sujet à prédicat, les syntagmes. . . s'analysent toujours de deux en deux.*' Accordingly the prepositional phrase, '*la femme au panier*' is a condensed transitive verb: '*la femme qui a le panier*' (176). In evidence of this he finally points out that more than fifty common Chinese prepositions are interchangeable with Chinese

verbs (178). What he should have said, of course, is that we can translate these words by prepositions or verbs—and for that matter also by other parts of speech—according to the idiom of the language we are translating into. This is no evidence that the Chinaman feels the word differently according to our translation. But possibly, in spite of his forceful expression, Frei means this whole parallelism to the subject-predicate formula only figuratively, where we might say 'as it were'. At any rate it is a bit of ancient logic clouding a work whose very virtue lies in freeing the study of language from the 'Gängelband' of older disciplines.

R. E. SALESKI

Du Latin à l'Anglais. Pp. xxvi + 246. By PAUL CROUZET and ARMAND FOURNIER. (Les Ponts Romains: Collection d'entr'aide linguistique, I.) Toulouse: Privat, and Paris: Didier; 1929.

This is the first of a series of volumes which are to present, in reasonably simple form, a comparison of the forms, syntax, and vocabulary of Latin with those of a modern language, that students may utilize their knowledge of Latin in acquiring the modern language. The product is a comparative grammar on a limited scale; for a comparison with French also is inevitable. The idea is admirable.

But the execution is distinctly inferior. The authors show no real feeling for English idiom, nor, apparently, for Latin. Of a great number of examples I select a few; the references are by pages. 42 et passim: The English superlative is always given with the definite article, quite contrary to the practice of English paradigms. 43: English *numerous* is used in the meaning *tuneful*; and frequently obsolete or extremely rare words are cited as though they were normal English (*smaragd*, 146; *reddition*, 147; *zunderbearer*, 211; *phosphor*, 214; and especially the Latinism *extinct* for *dead*, in Milton's 'Adam shall live, I extinct', 127). 73: The present passive is quoted as *I am punished*; but the real present is *I am being punished*. 84: *The least* is given as the English for Latin *paucissimi*; it should be *fewest*. 106: Here is a very bad place. *There is the father* is given as the English for Latin *pater adest*, while the French is given in two versions: *il y a le père*, *le père est là*. Now *There is the father* is unidiomatic per se; we may say *There's the father and the mother and the two children*, or *There's the father to be accounted for*, etc., but always with some addition; which would be Latin *Est pater*. On the other hand, *Pater adest* means *Father's here*, or *Father's arrived*.

The third section, from 137 on, deals with etymology, and contains many errors. 138-9: The root of Latin *curro*, Eng. *horse*, is given as *khors*; there is no basis for the aspiration. 148: *Supra* is said to be a prefix in *supr-eme*; *infra* a prefix in *infer-nal*; *ultra* a prefix in *outr-age* (but the suffix *-age* is given 152): what then is the root or base in these words? The division *trans-pire* is wrong also. 151-2: Suffixes *-or*, *-rix*, *-ress*, *-ure* are listed in *actor*, *janitrix*, *actress*, *creature*, instead of *-tor*, *-trix*, *-tress*, *-ture*. 154: *-eous* is said to come from Latin *-eus*, as in *spontaneous*; whereas every *-ous* implies an original or extended *-osus*. 232-3: The table of languages is quite worthless; wrong emphasis is laid in some places (Lithuanian, Lettish, Slavic are coordinate in value under *Baltico-Slave*), and the whole classification is in detail out of date.

The volume might be useful if properly executed. It needs revision by a scholar who has a *Sprachgefühl* for English; by one who knows Latin thoroughly; and by one with a good knowledge of comparative linguistics. It is to be hoped that the later volumes of the series will have the benefit of competent supervision; for as I have said, the volume might be useful, and, let me add, it is highly desirable that comparative linguistics should not remain a merely theoretical science, but should be made an applied science as well, in the service of even elementary teaching.

ROLAND G. KENT

Studies in Passive Nouns with a Concrete Sense in English. Pp. 164. By ELNA BENGTSSON. Lund, Sweden: 1927.

The author has investigated a very interesting subject, one that has been rather neglected by students of English. The existence of 'passive nouns' has been noticed before, of course, as by Jespersen, *Growth and Structure of the English Language*,⁵ 102-3. And the class was dealt with somewhat as long ago as 1889 by Hj. Falk in his article 'Die nomina agentis der altnordischen Sprache' (*PBB* 14.1-52), who included with his nouns of agency also those designating 'the receiver of an action', which I think was an unfortunate extension of the term. Passive nouns are also mentioned by Szadowsky, *Nomina Agentis des Schweizerdeutschen*, 1918, and K. Kärre, *Nomina Agentis in English*, Uppsala, 1915. But Miss Bengtsson's is the first investigation of the type. It is a study of the origin and growth of such formations, and the method of forming them in the different periods; and her study includes those nouns which may be active or passive, as *building*, or *seller*, and those which are always passive, as *payee*. Since she has

limited her material for the ME and the NE period to the suffixes *-ee*, and *-er*, her treatise really falls into two parts, the major part (79–153) being that which deals with these two formations, and to this part there are appended three excellent charts, showing the productivity of the suffixes in the period 1300–1926. This part is preceded by an ‘introduction’ on the criteria of the passive sense, adjectives with a passive sense (as OE *bryce*, breakable), and adverbs and conjunctions with a passive sense; this is followed by a chapter on different types of verbal constructions, different types of passive nouns, and passive nouns with a passive sense in OE. In the last chapter the OE material is offered complete: there are 130 nouns, in which the neuter *a*-stem words of the form of *gebland*, and those with the suffix *-ung* (*-ing*), Gmc. *-ungō* (*-ingō*), dominate, having respectively 23 and 25 occurrences; there are 13 with the suffix *-i*, as in *byve* ‘son’. There are then in OE a few well-established patterns for new coinages of functionally passive nouns. G. Krüger, *Syntax der englischen Sprache* (quoted on page 86) and Jespersen 102–3, held that the *-ee*-type of passive nouns, with its origin in the French participial ending *-é*, is a special English development. I believe this is correct. Miss Bengtsson, however, disagrees with this and attempts to show that the practice had its origin in OFr. However, the scantiness of the evidence adduced (OFr. *donee*, and *legatee*) is, it seems to me, rather proof of the opposite. The type was developed on English soil (so Krüger), and apparently in Anglo-French (Norman) legal language. It is interesting that the two earliest occurrences of the form cited by the author are from non-legal documents, namely *ordinee* ‘a minister who is ordained, now usually a newly ordained deacon’, and *rosee*, ‘a dish flavored with rose-petals’. But in the whole period 1300–1600 there appear only two other examples; the total for the period in legal language, however, is 27. Also after 1600, clear down to ca. 1820, the type continues as a characteristic of the language of the laws (63, as against 39 non-legal words). But at 1926 the chart reveals an excess on the side of the non-legal terms, 118 as against 89 legal terms. I do not believe that this gives a true picture of the number in actual use. It would appear that the majority of the legal examples are still in use in the language of law, and they are still characteristic of the language of law. But of the 118 occurrences taken from non-legal documents (newspapers, humorous sheets, magazines, fiction) a large number are just nonce-words, that have no real existence; and others had a brief currency but are now obsolete. I cannot, therefore, convince myself that the type *-ee* is a growing type in the language of

to-day, as the author holds; on the contrary I believe the type has very little vitality either in dialectal or standard speech. As regards the passive nouns in *-er* (as *folder*, *roaster*, *porker*), I am not so sure; this type seems to be on the increase. In regard to the word *locker*, 'a receptacle that may be locked', page 137, (hence a deverbative passive noun), I do not think that this was the meaning when the word was first coined (1440), but that it meant 'a receptacle with a lock' (hence a desubstantive active noun); this seems to be the author's view too on page 151.

GEORGE T. FLOM

NOTES AND PERSONALIA

THE LINGUISTIC INSTITUTE will hold its Third Session at the College of the City of New York, which has agreed to administer the Institute for 1930 jointly with the Institute's Administrative Committee. The announcements will go out from the College, but a sufficient number will be given to the LINGUISTIC SOCIETY for distribution as a *Bulletin*. At the time of this writing it is impossible to add other data.

PROFESSOR ANTOINE MEILLET, of the College de France, an Honorary Member of the LINGUISTIC SOCIETY OF AMERICA, is conducting the following courses at Columbia University during the spring term of 1929-30: French 226, *Théorie générale du vocabulaire*; French 228, *Histoire de la langue latine*; French 302, *Histoire de quelques mots latins et français*. He will be also at the University of Chicago during the first half of the summer session.

ELIZABETH AVERY, Professor of Spoken English at Smith College, who became a member of the LINGUISTIC SOCIETY in August, 1928, died on August 12, 1929, in the fifty-fourth year of her age.

She was graduated from Cornell University with the degree of Ph.B., and then taught French and German in the Gouverneur High School, Gouverneur, N. Y. From there she went to the Rochester High School, as chairman of the department of modern languages; she next taught English in the Flushing High School, for sixteen years, during which period she pursued graduate work at New York University and gained the degree of Ph.D.

In 1919 Miss Avery went to Smith College to conduct courses in Public Speaking and class discussion in the department of Spoken English. While there, she directed her energies toward encouraging the study of the scientific principles of speech and their practical application to the improvement of the spoken language. She supplemented her previous training by courses at Columbia, Harvard, Oxford, and elsewhere; in 1928 she attended the LINGUISTIC INSTITUTE at New Haven, and was most enthusiastic over its value.

Because of poor health she received a sabbatical leave of absence for

1928-29, and much against her own desires was persuaded to rest for the year. Yet in this period of rest she made a complete draft of a text-book for secondary schools on the forms of written and spoken English in combination, developed through class discussion, and also wrote eight fully developed chapters for a second book on 'Oral Reading.' During this period appeared also the volume which she and two of her colleagues had written, 'First Principles of Speech Training', the first American book to present English phonetics systematically as a basis for elementary speech.

During her year of leave her health apparently improved; but in the summer she was stricken with appendicitis, and died in the Flushing Hospital one week after the operation. From a Minute passed by the Faculty of Smith College we make the following extract: 'She was a woman of tremendous energy, great enthusiasm, dynamic driving force, creative vision, keen wit and mentality, and a tolerance and understanding of human beings. Her death is a great loss to the College because she had yet so much to give. She is lamented by her associates as a distinguished woman and a loyal friend.' Those who knew her at the LINGUISTIC INSTITUTE will feel that the tribute is well deserved.

ROBERT CECIL MACMAHON, a Foundation Member of the LINGUISTIC SOCIETY OF AMERICA, died in New York City, April 9, 1929, in his fiftieth year.

He was born in British India, on June 1, 1879, the son of the Rev. John T. MacMahon, an American missionary of the Methodist Episcopal Church. He was educated in the United States, receiving the degree of A.B. from Wesleyan University, with honors in Greek. He received the A.M. from Columbia in 1901 and the Ph.D. degree in 1907. From 1903 to 1905 he studied at the American School of Classical Studies in Athens, holding a fellowship in the second year of his stay; his specialty was Greek vases, on which he published a number of articles.

He taught for several years in private schools, but in 1913 he went into the book business in New York, with special attention to books in other languages than English. He was himself a student of many languages, and was very active in the Societas Gentium Latina, a New York organization in the meetings of which the vernacular language was Latin exclusively. He was a member also of the Archaeological Institute of America and of the Booksellers League of New York, as well as of the LINGUISTIC SOCIETY, in which his interest was active and unremitting.

RABBI LOUIS A. MISCHKIND, of Wilmington, Delaware, a Foundation Member of the LINGUISTIC SOCIETY, died in May, 1929. Biographical details could not be secured by the Society's office.

LUZERNE L. STIRLING, who became a member of the LINGUISTIC SOCIETY in March, 1929, died very suddenly on May 25, 1929.

He was graduated from Yale University in 1927, and continued his studies in the classical languages, in the Graduate School of the same institution, where he expected in due time to receive the degree of Ph.D. In the spring of 1929, however, at the recommendation of Professor Hendrickson of Yale University, he accepted a position in the Latin Department of Mercersburg Academy, where he taught until two days before his death. An untimely passing of a promising young scholar: frater, ave atque vale.

OF THE PAPERS READ AT THE FIFTH ANNUAL MEETING, a number are being held for incorporation in larger works of the authors; some are under consideration by editors of journals; a few have not yet been prepared for publication. The following have appeared in print, or are about to appear:

- F. Boas, *The Classification of American Indian Languages*; in LANGUAGE 5. 1-7.
- G. M. Bolling, *The meaning of πον in Homer*; in LANGUAGE 5. 100-5.
- C. U. Clark, *An Early Use of the Accentual Clausula*; in *Proceedings of the American Philological Association* 59. xxi.
- G. O. Curme, *The Forms and Functions of the Subjunctive in the Classical and Modern Languages*; in *Modern Philology* 26. 387-99.
- J. de Angulo, *The Relation of Mixe to the Penutian Family*; to appear in *The International Journal of American Linguistics*.
- A. V. Williams Jackson, *The Term ročvarmh in a Turkish Manichaean Fragment*; in LANGUAGE 5. 97-9.
- R. G. Kent, *The Labial Nasal before Stops in Indo-European*; in *Donum Natalicium Schrijnen* 342-6.
- R. G. Kent, *The Praenestine Cookery Inscription*; in LANGUAGE 5. 18-22.
- W. Leopold, *Inner Form*; in LANGUAGE 5. 254-60.
- M. A. Luria, *Judeo-Spanish Dialects of New York City*; to appear in the *Todd Memorial Volume*.
- Grace H. Macurdy, *Homeric Names in -tor, and some other names of the short form occurring in Homer*; in *Classical Quarterly* 23. 23-7.
- A. D. Menut, *Doublets in the Language of Rabelais*; in LANGUAGE 5. 106-12.

- T. Michelson, *Some Algonquian Phonetic Shifts, and Addenda*; to appear in the *Collitz Honorary Volume*.
- W. A. Oldfather, *A Variety of the So-called Objective Genitive in Greek and in Latin*; in *Donum Natalicium Schrijnen* 624-34.
- F. R. Preveden, *Etymological Miscellanies*; in *LANGUAGE* 5. 147-54.
- H. F. Rebert, *The Origin and Meaning of Latin at*; in *Classical Philology* 24. 169-75.
- C. C. Rice, *Spanish Etymologies*; in *LANGUAGE* 5. 23-6.
- D. M. Robinson, *A Deed of Sale at Olynthus*; in *Transactions of the American Philological Association* 59. 225-32.
- E. Sapir, *The Status of Linguistics as a Science*; in *LANGUAGE* 5. 207-14.
- E. H. Sturtevant, *Hittite Denominatives in a(i) and one Source of Indo-European Nouns in Long ā*; in *LANGUAGE* 5. 8-14.
- E. H. Sturtevant, *Some Nouns of Relationship in Lycian and Hittite*; in *TAPA* 59. 48-56.
- J. R. Swanton, *The Tawasa Language*; in *American Anthropologist* 31. 435-53.
- Pauline Turnbull, *Praenestine asom fero = adsum, fero*; in *LANGUAGE* 5. 15-17.
- P. B. Whitehead, *A New Method of Studying the Caesura*; in *PAPA* 59. xxi.

THERE SEEMS TO BE SOME QUESTION among American linguists as to the terms of membership in the *Indogermanische Gesellschaft*. Membership is equivalent to subscribing for the annual *Indogermanisches Jahrbuch*, and the only dues are the cost of this publication (from 20 to 30 marks each year), for which members are billed. As this publication is the one periodical bibliography in the Indo-European field, its usefulness and the urgency of helping it along need no comment. Anyone may subscribe to the *Jahrbuch* and join the society by sending his name to Prof. A. Debrunner, Jena, Germany, or to Leonard Bloomfield, University of Chicago.

THE FACSIMILE TEXT SOCIETY is a new organization, just formed, whose object is the reproduction of rare texts and manuscripts. The Society expects to print from photographs and hopes to produce copies of texts at a little more than one cent a page. Membership is five dollars a year, and entitles members to publications costing five dollars, without charge, and to other publications at two thirds of the list price. For further information, application should be made to F. A. Patterson, Facsimile Text Society, Columbia University, New York City.

SUBSEQUENT TO THE LAST PUBLISHED LIST OF NEW MEMBERS, and up to the end of 1929, the following new members for 1929 were received, whose addresses and linguistic interests will be found in the List of Members for 1929 printed in this issue: J. C. Bardin, Miss E. D. Breeze, P. W. Carhart, Anders Orbeck, H. T. Price, R. W. Tucker.

The following were received before January 8, 1930, as members for 1930:

Prof. Ralph S. Boggs, Univ. of North Carolina, Chapel Hill, N. C. (Spanish)

Prof. Edward C. Ehrensperger, Wellesley College, Wellesley, Mass. (English Literature)

Rev. Franz J. Feinler, 1414 East Av., Akron, Ohio. (Japanese, Mathematics, etc.)

Prof. Harris P. Fletcher, Univ. of Illinois, Urbana, Ill. (English)

Mr. George H. Genzmer, 602 Hill Bldg., Seventeenth St., Washington, D. C. (English; Editor, Dictionary of American Biography)

Prof. Peter Hagboldt, Univ. of Chicago, Chicago, Ill. (German)

Prof. Richard T. Holbrook, Univ. of California, Berkeley, Calif. (French)

Rev. C. L. Hrdlicka, O.S.B., St. Procopius College, Lisle, Ill. (Latin and Greek)

Mrs. Cecil B. Lovejoy, Apt. 24, 423 W. 118th St., New York City. (Graduate student, Dept. of Speech, Teachers College, Columbia Univ.)

Prof. Mary B. McElwain, Smith College, Northampton, Mass. (Latin)

Prof. Frederick W. Peterson, Foster Road, Ann Arbor, Mich. (Rhetoric, Univ. of Michigan)

Mrs. Helen P. Pond, 183 Lawrence St., New Haven, Conn.

Mr. Walter A. Reichart, 715 Forest Av., Ann Arbor, Mich. (German, Univ. of Mich.)

Mr. L. Leo Taub, 316 W. 95th St., New York City. (German)

Prof. Oliver Towles, New York Univ., Washington Square, New York City. (French)

Mr. W. Freeman Twaddell, Univ. Club 426, Madison, Wisc. (German, Univ. of Wisconsin)

Prof. Rachel Wilson, Hollins College, Hollins, Va. (French)

Miss Kathryn L. Wood, 241 Merion Road, Merion, Pa. (Graduate student in French, Bryn Mawr College)

Dr. Karl Zemen, State Univ. of Iowa, Iowa City, Iowa. (Experimental Phonetics; Comparative Linguistics)

PROCEEDINGS
OF THE
LINGUISTIC SOCIETY OF AMERICA
AT THE SIXTH ANNUAL MEETING

CLEVELAND, DECEMBER 30 1929 TO JANUARY 1 1930

The Sixth Annual Meeting of the Society was held in Cleveland, Ohio, on Monday, December 30 1929, to Wednesday, January 1 1930, at the invitation of the Western Reserve University, and in conjunction with the meetings of the Modern Language Association of America. The headquarters of the Society were at the Hotel Statler, Twelfth Street and Euclid Avenue, where the registration office was placed and all sessions were held.

Record was secured of the attendance of the following members and members-elect of the Society; other members were present, but failed to give their names to the Secretary pro tempore:

H. Almstedt.
L. Bloomfield; G. M. Bolling; W. F. Bryan.
E. Cross; G. O. Curme.
G. H. Danton; H. G. Doyle.
F. J. Feinler; G. T. Flom.
Miss I. M. Greer.
Miss E. A. Hahn; H. A. Hamilton; M. L. Hanley; R.-M. S. Heffner; J. P. Hoskins.
J. H. Jackson.
S. Kroesch; H. Kurath.
H. Larsen; H. J. Leon; W. Leopold; C. M. Lotspeich.
C. S. Northup.
R. E. Parker; Miss L. Pound; F. R. Preveden; H. T. Price; E. Prokosch.
C. C. Rice; H. B. Richardson; E. C. Roedder.
Miss M. Saleski; R. E. Saleski; E. H. Sehart; G. W. H. Shield; D. B. Shumway;
T. Starck; E. H. Sturtevant.
E. Voss.
T. G. Wesenberg; B. L. Whorf; C. A. Williams.
A. J. F. Zieglschmid.

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The First Session was held in the Lattice Room of the Hotel Statler, on the afternoon of Monday, December 30. In the absence of President

Grandgent and Vice-President Oldfather, the meeting was called to order at 2.15 P.M. by Professor R. E. Saleski, who read selections from President Grandgent's letter, expressing his disappointment at being unable to be present, because of illness; and he then nominated Professor Leonard Bloomfield for the position of Chairman pro tempore. The motion was seconded and carried, and Professor Bloomfield took the chair, appointing Professor R. E. Saleski to serve as Secretary pro tempore of the sessions in the absence of the Secretary, Professor R. G. Kent. About 50 persons were present at the session.

In the absence of Professor B. P. Bourland of the Local Committee, the Secretary pro tempore reported briefly on the arrangements for the meeting: that the President of the Western Reserve University would receive the members and guests of the visiting societies on Monday afternoon at 4.30 o'clock, at the Cleveland Museum of Art; that the Western Reserve University would entertain the members and guests of the visiting societies at luncheon, at the Hotel Statler, on Tuesday at noon; that the Cleveland Museum of Arts invites the members and guests of the visiting societies to visit its collections.

The reading of papers was then begun:

Prof. Franz Boas, of Columbia University: *The Work of the Committee on Research in American Indian Languages*. (Read by title only.)

Prof. R. E. Parker, of the University of Tennessee: *Some Observations on the Distribution and Chronology of Scandinavian Loanwords in Middle English*. Discussion by Messrs. Cross, Lotspeich, Prokosch, Hanley, B. G. Gleiss, Larsen.

Prof. E. Adelaide Hahn, of Hunter College: *A Linguistic Fallacy (as observed in Vergil)*, that the relation of a to b is identical with that of b to a. Discussion by Messrs. Sturtevant, Cross, Bolling, Jackson, Hoskins, Lotspeich.

Prof. Hereward T. Price, of the University of Michigan: *The Dictionary of Early Modern English*. Discussion by Mr. Cross, Miss Hahn, Mr. B. G. Gleiss.

Mr. B. L. Whorf, of Wethersfield, Conn.: *Stem Series in Maya*. Discussion by Messrs. Sturtevant, Kurath.

Adjournment was taken at 3.55 P.M.

In the later part of the afternoon, the members and guests of the societies were welcomed at a reception given by the President of the Western Reserve University, at the Cleveland Museum of Art; and at

6.15 P.M. an informal dinner was held by the Society, in the Lattice Room of the Hotel Statler, with an attendance of 40 persons, of whom 34 were members and members-elect of the Society. The evening was given over to a general session of the Modern Language Association, at which the address of Professor Leonard Bloomfield on *Linguistics as a Science* was of especial interest to the members of the Linguistic Society. After the end of this address, the Executive Committee of the Society held its regular meeting.

The Second Session was held in the Euclid Room of the Hotel Statler, on the morning of Tuesday, December 31. Professor Bloomfield called the meeting to order at 9.30 A.M. About 25 persons were in attendance.

By motion, the reading of the minutes was dispensed with, as the minutes of the previous meeting had already been printed in *LANGUAGE* 5.52-66.

For the Secretary, Professor R. G. Kent, the following report was presented by the Secretary pro tempore, and it was ordered to be received and filed:

In the year 1929 the membership statistics are as follows: for the year 1928 there were 389 members, of whom 4 died during the year: 16 (R. N. Albright, L. M. Clark, G. F. Cole, D. L. Drew, C. W. Eastman, C. S. Fox, J. R. Kantor, W. E. Leonard, H. S. Lowther, F. P. Magoun Jr., A. C. Mahr, O. H. Moore, W. A. Read, W. C. Salley, N. Stchoupak, J. S. P. Tatlock) presented their resignations, effective at the end of 1928; 13 (C. E. Anibal, H. D. Austin, G. H. Brown, V. Chankin, B. F. Luker, A. S. Lusenberg, C. L. Meader, F. Ortiz, W. P. Reeves, L. Roehrsheim, W. N. Thomas, G. Trau, M. H. Vigneron) were dropped from the membership list, as directed by the Constitution of the Society in the case of those who have failed for two years to pay the annual dues. The net membership with which the Society started 1929 was therefore 356; the new members of 1929 are 72. The total membership for 1929, in addition to the 12 honorary members, is therefore 428; of these, 7 are unpaid for 1928-9 and subject to being dropped from the rolls at this time, and 33 (including 1 deceased) are unpaid for 1929. We regretfully record the death of 5: R. C. MacMahon, on April 9; James Renwick Rodgers, on April 13; Louis A. Mischkind, in May; Luzerne L. Stirling, on May 25; Elizabeth Avery, on August 12. Appreciations of these are to be found in the *Notes and Personalities* of *LANGUAGE*.

The business of the Secretary-Treasurer's Office has been greatly increased in the current year, and could be carried on only by the aid of a part-time secretary. With this assistance, several things have been done which previously could not be accomplished; notably, a canvass for library subscriptions and a revision of the complimentary list of foreign scholars.

The library subscriptions have increased from 89 to 117 by the cancellation of

1 and the addition of 29; nearly all the new subscribers secured complete sets of the publications.

The list of foreign scholars receiving our publications gratuitously has been thoroughly revised. A letter was sent to every such scholar, asking whether he finds our publications of value and wishes to continue to receive them. Those who did not reply were stricken from the list. A large number of new names were then submitted to the Officers of the Society and certain other prominent members, and, in accordance with their votes, other scholars were tentatively added to the free list. Of these, those who indicated by reply letter that they appreciated the receipt of our publications have been permanently continued on the list. This complimentary list now amounts to 130.

The exchanges and copies for review have increased from 55 to 62, although two exchanges have been discontinued.

The much increased receipts from the sale of back sets and single publications, which will be noted in the Treasurer's Report, are due to the large number of new subscribers who took complete sets, and to a considerable purchase of back sets by members of the Society who wished to complete their files under the special price in 1929 to members for that year.

Other matters are dealt with in the Report of the Executive Committee, and in the Report of the Treasurer.

The Secretary pro tempore presented the following report of the Treasurer, Professor R. G. Kent, which was ordered received and filed, pending the report of the Auditors:

LINGUISTIC SOCIETY OF AMERICA

Treasurer's Report, Dec. 24, 1928, to Dec. 25, 1929

Balance from previous year (checkable).....		\$ 1277.86
Receipts:		
Dues for 1927 (1), 1928 (16), 1929 (362).....	\$1895.03	
Library subscriptions for 1929 (95).....	475.04	
Advance dues, 25 members, 18 libraries.....	215.00	
Sale of back sets and single publications.....	625.37	
Reprints, mailing lists, bindings.....	51.68	
Interest, checkable account and savings fund.....	91.18	
Interest on Endowment, to Aug. 1, 1929.....	50.00	
Gift.....	1.00	
Excess payment.....	.30	
Subvention to <i>Bulletin No. 3</i> , from Linguistic Institute.	266.19	
Subvention to <i>Monograph No. 4</i> , balance.....	165.00	
Subvention to <i>Dissertation No. 5</i>	215.00	
Subvention to <i>Dissertation No. 6</i>	275.00	
Subvention of Carnegie Corporation to Linguistic Institute through A.C.L.S.....	4000.00	
Subvention of A.C.L.S. to Linguistic Institute.....	1100.00	
Subvention of A.C.L.S. to <i>Bulletin No. 4</i>	37.11	9462.90
Total Funds available.....		\$10740.76

Disbursements:

Secretary's expenses to New York meeting, 1928.....	\$ 7.98	
Editor's expenses to Dec. 31, 1928.....	25.00	
Sec'y pro tem's expenses to Cleveland meeting, 1929..	34.97	
Office expenses: postage, stationary, printing, address- ing, telegrams, telephone, express, binding, etc.....	350.14	
Office expenses: secretary.....	180.45	
Circulars and notices for Sixth Meeting.....	54.39	
Dues for 1929, American Council of Learned Societies..	25.00	
Half expenses of delegates to A.C.L.S. meeting.....	48.77	
Advertising.....	45.00	
Excess payment returned.....	.30	
LANGUAGE: wrappers, cash disbursements.....	31.28	
LANGUAGE IV.4, contents, reprints.....	452.36	
LANGUAGE V.1, with reprints.....	457.92	
LANGUAGE V.2, with reprints.....	245.20	
LANGUAGE V.3, with reprints.....	356.11	
LANGUAGE V.4, with table of contents.....	444.08	
<i>Language Dissertation No. 3</i> , gross cost.....	115.65	
M. M. Odgers, excess deposit on <i>Diss. No. 3</i>	6.72	
<i>Language Dissertation No. 5</i> , gross cost.....	250.00	
<i>Language Dissertation No. 6</i> , gross cost.....	304.56	
A. J. F. Zieglschmid, excess deposit on <i>Diss. No. 6</i>	4.20	
<i>Bulletin No. 3</i> , gross cost.....	266.19	
<i>Bulletin No. 4</i> , gross cost.....	218.49	
Purchase for stock, copies of LANG. V.1.....	5.00	
Purchase for stock, copies of <i>Diss. No. 5</i>	10.00	
Subventions to Linguistic Institute... ..	5100.00	9039.76
		<hr/>
Balance on deposit in the First National Bank of Philadel- phia, 32nd and Market Sts.....		1701.00
		<hr/>
		\$10740.76

Schedule of Assets and Liabilities, to Dec. 31, 1929

Assets:

Cash in checkable account, First National Bank of Phila.....	\$1701.00	
Cash in Savings Fund of Integrity Trust Co., 36th and Walnut Sts., Phila.....	1500.00	
Current funds in Endowment Fund.....	65.00	
Accrued interest on preceding items, to Dec. 31, 1929 (est.).....	63.75	
Accrued interest on Endowment Fund, to Dec. 31, 1929	21.83	
Recoverable arrears of dues (est.) and subscriptions, and unpaid orders for publications.....	133.60	3485.18
		<hr/>

Liabilities (estimated):

Editor's allowance, 1929.....	\$ 25.00	
Dues and subscriptions paid in advance.....	215.00	
Reprints from <i>LANGUAGE</i> V. 4.....	30.00	
<i>Language Dissertation No. 4</i> , gross cost.....	550.00	
<i>Language Monograph No. 4</i> , gross cost.....	375.00	1195.00

Estimated Net Balance, in addition to \$935 of endowment..	\$ 2290.18
Actual Net Balance, Dec. 31, 1928.....	1817.30
Actual Net Balance, Dec. 31, 1927.....	1217.33
Actual Net Balance, Dec. 31, 1926.....	775.55
Actual Net Balance, Dec. 31, 1925.....	482.67

The Trustees of the Endowment Fund (F. C. Morgan, A. R. Spencer, R. G. Kent) ask that their report be here appended:

There is no change in the Endowment Fund during 1929. The Fund contains \$935, which, with \$65 of current funds, is invested in one One Thousand Dollar Five Per cent Net Guaranteed Mortgage Certificate of the West Philadelphia Title and Trust Co., in whose custody the certificate is left for safety. The Treasurer of the Society acknowledges the receipt of the interest as due.

On behalf of the Executive Committee, the Secretary pro tempore presented the following report:

During the year the Executive Committee, acting by correspondence, fixed the time and place of the present meeting, and elected to membership in the Society the several lists of nominees for membership published in *LANGUAGE* as elected in 1929.

President Grandgent, in conference with the Secretary, appointed Prof. A. V. Williams Jackson as delegate to the twenty-fifth Anniversary Meeting of the American Academy of Arts and Letters, held in New York, April 23 and 24. His report will be found in *LANGUAGE* 5. 198.

The President and the Secretary, on behalf of the Linguistic Society, sent a cablegram of congratulations to Prof. Joseph Schrijnen, of Nijmegen, on the occasion of his sixtieth birthday on May 3, when a congratulatory volume was presented to him by a number of scholars, including several members of the LINGUISTIC SOCIETY.

The Executive Committee authorized the publication of the *Announcement of the Linguistic Institute 1929*, as a *Bulletin* of the Executive Committee, provided the cost of the edition be paid by the Linguistic Institute, and further authorized the publication of the *Record of the Linguistic Institute 1929*, as a similar *Bulletin*. With the *Record* was included a *Report of the Conference on a Linguistic Atlas of the United States and Canada*, prepared by H. Kurath, and subsidized in part by the American Council of Learned Societies.

The Executive Committee, by a mail vote, taken about September 1, authorized the Administrative Committee of the Linguistic Institute to proceed with plans for a third session of the Institute in 1930.

The Executive Committee met on Monday, Dec. 30, 1929, at 10 p.m., in Parlor E of the Hotel Statler, Cleveland, Ohio. Present, Messrs. Bloomfield, Prokosch;

and, by invitation, Messrs. Bolling and Kurath, of the Committee on Publications; and Messrs. E. H. Sturtevant and R. E. Saleski, of the Administrative Committee of the Linguistic Institute. In the absence of the Secretary of the Society, Mr. Saleski served as Secretary pro tempore.

The Reports of the Secretary, of the Treasurer, of the Editor, and of the Director of the Linguistic Institute, were presented informally and their contents considered. The resolutions proposed by the Director of the Linguistic Institute were formally approved.

The American Council of Learned Societies has requested that an election be made of a successor to Prof. E. H. Sturtevant, whose term as a representative of the LINGUISTIC SOCIETY on the Council expires at the end of 1930. The Executive Committee has reappointed to this position Prof. E. H. Sturtevant, for the term 1931 to 1934.

The Executive Committee, under authority given to it by the Society at the last annual meeting, continues the Administrative Committee of the Linguistic Institute and, having learned that the Administrative Committee, under the authorization given to it in September 1929, has made arrangements to hold the third session of the Linguistic Institute at the College of the City of New York, adds Prof. E. C. Roedder of that institution to the Administrative Committee.

The Executive Committee recommends that an appropriation of \$200 be made from the current funds of the Society, as a subsidy to a series of volumes on *The Vedic Variants*, by the late Professor Maurice Bloomfield and Professor Franklin Edgerton; provided that an additional subsidy of \$1500 be secured from other sources toward the expense of the first volume; further, that, being larger publications issued under outside subvention, the volumes of this series be, under Article II, Section 10 of the Constitution, made an extra publication not distributable without further charge to members and subscribers in return for their annual dues.

After consideration of a number of nominations, the Executive Committee recommends that, in accordance with Article II, Section 8 of the Constitution, the following scholars be elected to honorary membership:

Hermann Hirt, Professor of Comparative Indogermanic Philology and Sanskrit.
University of Giessen.

Holger Pedersen, Professor of Oriental Philology, University of Copenhagen,
C. C. Uhlenbeck, of Nijmegen (emeritus).

The Executive Committee asks that the Society express its approval of these actions and recommendations.

The report was ordered to be approved and filed. The recommendation concerning the *Vedic Variants* series was on motion adopted. The nominees for Honorary Membership were, on motion of Professor Bolling, elected, the Secretary pro tempore casting one ballot on behalf of the Society.

Professor G. M. Bolling, Editor of the Publications of the Society and Chairman of the Committee on Publications, presented the following report, which was on motion adopted:

For the Committee on Publications I have the honor to report that during the year 1929 we have been able to issue:

LANGUAGE, Volume 5. Pp. 291.

LANGUAGE DISSERTATION No. 4: *Studies in the Syntax of the Gathas of Zarathushtra, together with Text, Translation, and Notes.* Pp. 160. By Maria Wilkins Smith. University of Pennsylvania Dissertation.

LANGUAGE DISSERTATION No. 5: *Studies in the Syntax of the Old English Passive with special Reference to the Use of *wesan* and *weorðan*.* Pp. 80. By Louise Grace Frary. University of Minnesota Dissertation.

LANGUAGE DISSERTATION No. 6: *Zur Entwicklung der Perfektschreibung im Deutschen.* Pp. 75. By A. J. Friedrich Zieglschmid. Northwestern University Dissertation.

There will appear shortly, as a publication of 1929, LANGUAGE MONOGRAPH No. 4, *The Germanic Case of Comparison*, pp. 121, by Professor George William Small.

The Committee wishes to express its appreciation of the assistance which it has received from various members of the Society.

Professor E. H. Sturtevant, as Director of the Linguistic Institute, presented the following report:

The Second Session of the Linguistic Institute, as authorized by the Executive Committee (see LANG. 5. 56), was held in New Haven from July 8 to August 16, 1929. A report of this session has been compiled by Prof. R. G. Kent and published as *Bulletin No. 4* of the LINGUISTIC SOCIETY OF AMERICA, which is made a part of this report. Special attention is called to the financial statement on page 18.

The Executive Committee has authorized the holding of a third session of the Linguistic Institute in 1930, and has elected Professor E. C. Roedder of the College of the City of New York, as an additional member of the Administrative Committee. The session is to be held in New York at the College of the City of New York from July 7 to August 15. Details will be announced in a circular to be distributed about March 1.

Professor Edward Prokosch has secured the establishment of two lectureships in the Linguistic Institute, each of which is to yield \$500. They are the Lafrentz Lectureship in Old Frisian and Old Saxon and the Germanistic Society Lectureship in Old High German. Efforts are being made to secure additional lectureships.

The remaining financial responsibility for the 1930 session of the Linguistic Institute will be assumed by the College of the City of New York.

The Administrative Committee recommends the adoption of the following resolutions:

Resolved, that the LINGUISTIC SOCIETY OF AMERICA hereby empowers the Executive Committee to authorize the continuance of the Linguistic Institute in 1931, to appoint an Administrative Committee to conduct a session of the Linguistic Institute in 1931, and to determine where such a session shall be held.

Resolved, that it is the sense of this meeting that an Endowment Fund for the

Linguistic Institute should be raised, and that all members of the LINGUISTIC SOCIETY should be urged to cooperate with the Administrative Committee to this end.

On motion, the report was received, and the resolutions were adopted.

Professor Leonard Bloomfield, Chairman of the Committee on Subvention for publication of manuscript material approved by the Committee on Research in American Indian Languages, stated that the Committee had no report to make, since the publication of American Indian matter is now in the hands of a committee of the American Council of Learned Societies. On motion it was voted that the question of continuing the Committee, and of possibly changing its membership, be given to the charge of the incoming Executive Committee.

Professor E. H. Sturtevant, for the delegates to the American Council of Learned Societies (E. H. Sturtevant, L. Bloomfield), reported that both delegates of the Linguistic Society had attended the meetings of the Council on January 26, 1929, the proceedings of which are accessible in printed form in Bulletin No. 11 of the Council; and that the Council had made an appropriation to the LINGUISTIC SOCIETY, toward the expenses of the Linguistic Institute of 1929.

The Chairman now appointed the following Committees:

On Nomination of Officers for 1930: H. Almstedt, Chairman; C. S. Northup; C. C. Rice.

To Audit the Accounts of the Treasurer: R. E. Saleski; E. C. Roedder.

On Resolutions: C. M. Lotspeich, Chairman; T. Starck.

At the request of President Grandgent, the Secretary pro tempore announced the two courses and a seminary which will be conducted at Columbia University during the next semester by Professor Antoine Meillet of the College de France; discussion by Miss Hahn.

The Chairman called attention to the recently published volume of studies in honor of Professor Collitz, the first President of the LINGUISTIC SOCIETY; discussion by Professor Starck.

The Chairman announced that membership in the Indogermanische Gesellschaft could be obtained through Professor A. Debrunner of Jena or through himself.

Professor Kurath made an informal report of what had so far been done on the *Linguistic Atlas of the United States and Canada*.

The method of electing officers of the LINGUISTIC SOCIETY was discussed by Messrs. Bloomfield, Kurath, Cross, Sturtevant, and Prokosch. By motion the matter was referred to the incoming Executive Committee, for consideration and action.

Other business, proposed by any member of the Society, was called for, and there being none, the reading of papers was begun:

Prof. C. H. Grandgent, of Harvard University, President of the Linguistic Society of America: *Phonetic Coincidences*. (Read by title only.)

Prof. Franklin Edgerton, of Yale University: *Sanskrit e and o for as*. (Read by title only.)

Prof. U. T. Holmes, of the University of North Carolina: *The Question of Germanic Influence on Old French Syntax*. (Read by title only.)

Prof. C. M. Lotspeich, of the University of Cincinnati: *The Origin of Inflectional Endings*. Discussion by Messrs. Sturtevant, Bolling, Prokosch, Preveden.

Prof. G. M. Bolling, of the Ohio State University: *Some Pronominal Forms in Homer*.

Adjournment was taken at 11.50 A.M.

The members of the visiting societies were entertained at luncheon by the Western Reserve University, at noon on Tuesday, at the Hotel Statler.

The Third Session was held in the Euclid Room of the Hotel Statler, on the afternoon of Tuesday, December 31. Professor Bloomfield called the meeting to order at 2.25 P.M. About 25 persons were in attendance. The reading of papers was at once begun:

Dr. Ephraim Cross, of New York City: *Celtic and Iberian Latin; Celtic and Basque; French and Spanish*. Discussion by Messrs. Whorf, Richardson, Sturtevant, Bolling.

Prof. F. R. Preveden, of DePaul University: *Church Slavonic korab'*

'boat, ship', and Greek *κάραβος* 'a kind of light ship', etc. Discussion by Messrs. Bolling, Cross.

Prof. Louise Pound, of the University of Nebraska: *Notes on American English*. Discussion by Messrs. Hamilton, Cross, Miss Hahn, Messrs. Leopold, Sturtevant, Curme.

Prof. W. Leopold, of Williams College: *Polarity in Language*. Discussion by Messrs. Sturtevant, Lotspeich, Curme, Miss Hahn, Messrs. Starck, Kurath, Roedder, Cross, Jackson, Whorf.

Prof. Paul Radin, of Fisk University: *The Expression of the Plural in the Pomo Language of California*. (Read by title only.)

Adjournment was taken at 4.30 P.M.

Members of the Linguistic Society were welcome at the annual subscription dinner of the Modern Language Association, held at 7.00 P.M. on Tuesday at the Hotel Statler, and at the smoker following the dinner, when the chief speaker was Professor B. P. Bourland of the Western Reserve University.

The Fourth Session was held in Room 345 of the Hotel Statler, on the morning of Wednesday, January 1. Professor Bloomfield called the meeting to order at 9.40 A.M. About 30 persons were in attendance. The reading of papers was at once begun:

Prof. W. L. Graff, of McGill University: *Categorizing in Language*. (Read by title only.)

Prof. E. H. Sturtevant, of Yale University: *Evidence that Hittite and Indo-European are Independent Descendants of Pre-Indo-European*. Discussion by Messrs. Saleski, Bolling, Bloomfield, Prokosch, Cross, Williams.

Prof. A. J. F. Zieglschmid, of the State University of Iowa: *Concerning the Disappearance of the Simple Past in Various Indo-European Languages*. Discussion by Messrs. Cross, Prokosch, Leopold, Preveden.

Prof. W. Leopold, of Williams College: *Function and Meaning*. Discussion by Mr. Saleski.

Prof. F. R. Preveden, of DePaul University: *Some Indo-European Root-Parallels*. Discussion by Messrs. Saleski, Sturtevant, Whorf, Northup, Cross.

Dr. Janet R. Aiken, of Columbia University: *A Theory of Accord in Sounds*. (Read by title only.)

Prof. F. R. Blake, of the Johns Hopkins University: *Formalist vs. Semasiologist*. (Read by title only.)

Mr. V. F. Jankauskas, of Hoboken, N. J.: *The Etruscan Language*. (Read by title only.)

The report of the Committee on Nominations, presented earlier in the session by Professor Almstedt, and deferred for consideration until after the reading of the papers, was now taken up. In the absence of nominations from the floor, it was adopted in the usual manner, and the nominees were declared elected:

President, Professor Edward Prokosch, Yale University.

Vice-President, Professor T. A. Jenkins, University of Chicago.

Secretary and Treasurer, Professor Roland G. Kent, University of Pennsylvania.

Executive Committee, the preceding, and

Professor E. Adelaide Hahn, Hunter College.

Professor C. M. Lotspeich, University of Cincinnati

Professor E. C. Roedder, College of the City of New York.

Committee on Publications:

Chairman and Editor, Professor George Melville Bolling, Ohio State University.

To serve through 1932: Professor Samuel Moore, University of Michigan.

Professor Saleski, for the Auditors, reported that they had examined the accounts of the Treasurer and found them correct; whereupon the report of the Treasurer was approved.

Professor Sturtevant, as Director of the Linguistic Institute, presented the following statement:

We, the undersigned, have examined the accounts of Edgar H. Sturtevant as Director of the Linguistic Institute of the LINGUISTIC SOCIETY OF AMERICA for the period from Dec. 23 1928 to Dec. 27 1929, and we find them to be correct.

(signed) Walter Petersen
H. M. Hubbell

On motion the accounts of the Linguistic Institute were accepted and approved.

Professor Lotspeich, for the Committee on Resolutions, presented the following resolutions, which were on motion adopted:

Resolved, that the LINGUISTIC SOCIETY OF AMERICA express its sincere appreciation of the cooperation of Professor Carleton Brown, Secretary of the Modern Language Association of America, of the Local Committee at Cleveland, and of

the management of the Hotel Statler; of the hospitality extended by the President of Western Reserve University, and by the Western Reserve University; of the courtesies extended by the Cleveland Museum of Art.

Resolved, that the LINGUISTIC SOCIETY extend to Professor Franz Boas an expression of its deep sympathy in his bereavement.

Resolved, that the LINGUISTIC SOCIETY express its regret that Professor Grandgent was prevented by illness from attending the meeting in Cleveland, and extend to him the wish that he may soon be restored to perfect health.

Resolved, that the LINGUISTIC SOCIETY, appreciating the valuable and faithful work of Professor Kent, all the more regrets that he has been prevented by illness in his family from attending the meeting in Cleveland. It expresses the hope that the untoward condition may speedily be improved.

Adjournment was taken at 11.40 A.M.

(signed) R. E. SALESKI,
Secretary pro tempore.

LIST OF MEMBERS, 1929

This list includes all those who were on the rolls of the Society in 1929. SC before the name indicates Signers of the Call which led to the foundation of the Society, FM indicates Foundation Members, a date indicates the year of election. So far as the information is at hand, the special subject of instruction or of study, or the occupation, is given. Any changes of address or of title, and any errors, should be at once reported to the Secretary of the Society. Later lists will give the names of those who become members during 1930.

ASSOCIATED SOCIETIES

Indogermanische Gesellschaft, bei Prof. Dr. A. Debrunner,
Landgrafenstieg 5, Jena, Germany.

Société de Linguistique de Paris, à la Sorbonne, Paris V, France.

HONORARY MEMBERS

- 1927 Prof. Dr. A. Debrunner, Landgrafenstieg 5, Jena, Germany.
1927 Prof. Dr. Otto Jespersen, Ermelundsly, Gentøfte, Copenhagen,
Denmark.
1929 Prof. Dr. P. Kretschmer, Florianigasse 23, Wien VIII, Austria.
1927 Prof. A. Meillet, 24 Rue de Verneuil, Paris VII, France.
1929 Prof. Dr. C. Meinhof, Beneckestr. 22, Hamburg XIII, Germany.
1929 Prof. R. Menéndez Pidal, Centro de Estudios Historicos, Almagro 26, Madrid, Spain.
1928 Prof. Dr. W. Meyer-Lübke, Universität, Bonn, Germany.
1927 Dr. P. Rivet, 61 Rue de Buffon, Paris, France.
1928 Prof. Dr. Ed. Sievers, Schillerstr. 8, Leipzig, Germany.
1928 Prof. Dr. F. Sömmmer, Ludwigstr. 22, München, Germany.
1927 Prof. Dr. Jakob Wackernagel, Gartenstr. 93, Basel, Switzerland.
1927 Prof. Henry Cecil Wyld, Merton College, Oxford, England.

ACTIVE MEMBERS

- FM Prof. Arthur Adams, Trinity Col., Hartford, Conn. (English)
1928 Mr. J. H. Adams, Kenvil, N. J. (Translator and abstractor,
Hercules Experimental Station)
1929 President Cyrus Adler, The Dropsie College, Philadelphia, Pa.
(Semitics)

- 1929 Dr. Janet R. Aiken, Philosophy Hall, Columbia Univ., New York City. (Research Assistant, English and Comp. Linguistics)
- 1929 Prof. W. F. Albright, Johns Hopkins Univ., Baltimore, Md. (Semitics)
- FM Prof. Joseph E. A. Alexis, 1420 Garfield St., Lincoln, Neb. (Romance Langs, Univ. of Nebraska)
- 1926 Mr. Bernard M. Allen, Cheshire, Conn. (Latin, Roxbury School)
- 1926 Prof. Louis Allen, Univ. of Toronto, Toronto, Canada. (French)
- 1927 Mr. Wm. H. Allen, 3345 Woodland Av., Philadelphia, Pa. (Bookseller)
- 1929 Prof. Clara J. Allison, 1010 Washtenaw Av., Ypsilanti, Mich. (Latin, Mich. State Normal Coll.)
- FM Prof. Hermann Almstedt, Univ. of Missouri, Columbia, Mo. (Germanic Langs.)
- 1926 Mr. Manuel J. Andrade, DeWitt Clinton High School, New York City. (Spanish)
- 1925 Prof. A. LeRoy Andrews, Cornell Univ., Ithaca, N. Y. (German)
- 1925 Prof. Edward C. Armstrong, 26 Edgehill St., Princeton, N. J. (French, Princeton Univ.)
- 1928 Prof. Elizabeth Avery, Smith College, Northampton, Mass. (Spoken English) Died on August 12, 1929.
- 1928 Prof. George O. Aykroyd, 175 W. Union Blvd., Bethlehem, Pa. (Classical Langs. and Lits., Moravian Col. and Theol. Sem.)
- FM Prof. Harry Morgan Ayres, Columbia Univ., New York City. (English)
- FM Prof. Earle B. Babcock, Dotation Carnegie, 173 Boulevard St.-Germain, Paris, France. (Romance Langs.)
- 1929 Prof. James C. Bardin, Box 80, University, Va. (Romance Langs., Univ. of Virginia)
- 1925 Prof. James L. Barker, Univ. of Utah, Salt Lake City, Utah. (Modern Langs.)
- FM Prof. A. J. Barnouw, Columbia Univ., New York City. (Dutch Hist., Lang., and Lit.)
- SC Prof. LeRoy Carr Barret, Trinity Col., Hartford, Conn. (Latin)
- 1927 Mr. Phillips Barry, 5 Craigie Circle, Cambridge, Mass. (Classics)
- FM Prof. George A. Barton, Univ. of Pennsylvania, Philadelphia, Pa. (Semitic Langs.)
- 1927 Prof. Samuel Eliot Bassett, 295 S. Prospect St., Burlington, Vt. (Greek Lang. and Lit., Univ. of Vermont)

- 1926 Dr. Claudio Basto, Viana do Castelo, Portugal.
- 1927 Mr. Charles F. Bauer, 3440 Chestnut St., Philadelphia, Pa.
(Grad. student in Latin, Univ. of Penna.)
- FM Prof. Gertrude H. Beggs, Westhampton College, Univ. of
Richmond, Va. (Latin)
- FM Dean H. M. Belden, 811 Virginia Av., Columbia, Mo. (English,
Univ. of Missouri)
- SC Prof. Harold H. Bender, 120 Fitz Randolph Road, Princeton,
N. J. (Indo-Germanic Phil., Princeton Univ.)
- 1927 Prof. Adolph B. Benson, 221 L. O. M. Yale Univ., New Haven,
Conn. (German and Scandinavian)
- FM Miss M. Julia Bentley, 3517 Middleton Av., Clifton, Cincinnati,
Ohio. (Latin, Hughes High School)
- FM Mr. Morris Berg, 92 S. 13th St., Newark, N. J. (Romance
Langs.)
- FM Prof. Frank R. Blake, 1600 Park Av., Baltimore, Md. (Oriental
Langs., Johns Hopkins Univ.; Principal, Baltimore City
Col.)
- 1928 Prof. D. S. Blondheim, Johns Hopkins Univ., Baltimore, Md.
(Romance Phil.)
- SC Prof. Leonard Bloomfield, Univ. of Chicago, Chicago, Ill. (Germanic
Phil.)
- SC Prof. Franz Boas, Columbia Univ., New York City. (Anthropology)
- FM Mr. George Bobrinskoy, Univ. of Chicago, Chicago, Ill. (Sanskrit)
- 1928 Prof. Émile Boisacq, 271 Chaussée de Vleurgat, Ixelles-Bruxelles,
Belgium. (Sanskrit and Comparative Phil., Univ. of Brussels)
- SC Prof. George Melville Bolling, Ohio State Univ., Columbus,
Ohio. (Greek) Life Member, 1927.
- 1929 Prof. Benjamin P. Bourland, 11105 Euclid Av., Cleveland, Ohio.
(Romance Langs., Adalbert Coll.)
- 1926 Prof. J. L. Boysen, Box 1510, Univ. Sta., Austin, Texas. (Germanic
Langs., Univ. of Texas)
- 1929 Mr. Lyman R. Bradley, New York Univ., Washington Sq., New
York City. (German)
- 1929 Dr. Renward Brandstetter, Waldstätterhof, Lucerne, Switzerland.
(Indonesian Langs.)
- 1929 Miss E. D. Breeze, 1103 Wood Ave, Colorado Springs, Colo.
(Classics, Colorado Coll.)

- FM Prof. George Wm. Brown, 57 Sherman St., Hartford, Conn.
(Indology, Kennedy School of Missions)
- FM Prof. W. Norman Brown, Univ. of Pennsylvania, Philadelphia, Pa. (Sanskrit)
- 1925 Prof. W. F. Bryan, 1907 Orrington Av., Evanston, Ill. (English, Northwestern Univ.)
- SC Prof. Carl D. Buck, Univ. of Chicago, Chicago, Ill. (Comparative Phil.)
- 1926 Dr. Ludlow S. Bull, Metropolitan Museum, New York City.
(Egyptology, Metropolitan Museum and Yale Univ.)
- 1928 Miss Ruth A. Bunzel, Dept. of Anthropology, Columbia Univ., New York City. (Lang. and Ethnology of North American Indians)
- FM Prof. Robert B. Burke, Univ. of Pennsylvania, Philadelphia, Pa. (Latin)
- 1929 Prof. Romanus F. Butin, Catholic Univ., Washington, D. C. (Oriental Langs.)
- FM Prof. A. U. N. Camera, 575 Dahill Road, Brooklyn, N. Y. (Romance Langs., Col. of City of New York)
- 1927 Prof. Harry Caplan, Cornell Univ., Ithaca, N. Y. (Classics)
- 1929 Mr. L. Carballosa, Box 303, Berkeley, Calif. (Spanish)
- 1925 Prof. Frederick M. Carey, 405 Hilgard Av., Westwood Sta., Los Angeles, Calif. (Greek and Latin, Univ. of Calif. at Los Angeles)
- 1929 Mr. P. W. Carhart, care of G. & C. Merriam Co., Springfield, Mass. (Editor)
- 1929 Mr. Paul R. Carr, 3923 Packard St., Long Island City, N. Y. (Dealer in Oriental Language and Philological Books)
- 1929 Prof. Clive H. Carruthers, McGill Univ., Montreal, Canada. (Classical Philology)
- 1927 Prof. Jane Gray Carter, 175 Riverside Drive, New York City. (Classics, Hunter Col.)
- 1926 Prof. F. S. Cawley, 65 Fresh Pond Parkway, Cambridge, Mass. (German, Harvard Univ.)
- FM Juan C. Cebrian, Esq., Jorge Juan 6, Madrid, Spain. (Spanish)
- FM Dean George Davis Chase, Univ. of Maine, Orono, Me. (Latin)
- FM Dr. Edith Frances Claflin, 17 Felton Hall, Cambridge, Mass. (Greek and Latin, Rosemary Hall, Greenwich, Conn.)
- 1926 Mr. John M. Clapp, 15 E. 26th St., New York City. (Publisher)
- 1925 Prof. Walter E. Clark, 37 Kirkland St., Cambridge, Mass. (Sanskrit, Harvard Univ.)

- FM Mr. Francis P. Clarke, Univ. of Pennsylvania, Philadelphia, Pa.
(Philosophy)
- 1925 Prof. Harold L. Cleasby, 805 Comstock Av., Syracuse, N. Y.
(Classical Archaeology and Italian, Syracuse Univ.)
- SC Prof. Emeritus Hermann Collitz, 1027 N. Calvert St., Baltimore,
Md. (Germanic Phil., Johns Hopkins Univ.)
- 1927 Mrs. Klara H. Collitz (Mrs. Hermann), 1027 N. Calvert St.,
Baltimore, Md. (Germanic Philology)
- 1929 Miss Lou W. Conklin, Box 423, Roslyn, N. Y. (Drisler Fellow
in Latin, Columbia Univ.)
- FM Rev. George S. Cooke, The Wissahickon Inn, Redlands, Calif.
- FM Prof. Roberta D. Cornelius, Randolph-Macon Woman's Col.,
Lynchburg, Va. (English)
- 1927 Prof. Cornelia C. Coulter, Mount Holyoke Col., South Hadley,
Mass. (Latin)
- 1927 Prof. R. W. Cowden, 1016 Olivia St., Ann Arbor, Mich. (Rhet-
oric, Univ. of Michigan)
- FM Prof. Hardin Craig, Stanford University, Calif. (English)
- 1926 Prof. W. A. Craigie, Univ. of Chicago, Chicago, Ill. (English)
- FM Prof. J. P. Wickersham Crawford, Univ. of Pennsylvania, Phila-
delphia, Pa. (Romanic Langs. and Lits.)
- 1926 Prof. E. D. Cressman, 2287 S. Columbine St., Denver, Colo.
(Classics, Univ. of Denver)
- 1927 Dr. Ephraim Cross, 1847 University Av., Bronx, New York City.
(Linguistic Science)
- 1928 Prof. Tom Peete Cross, Univ. of Chicago, Chicago, Ill.
- 1926 Prof. G. O. Curme, Lunt Library, Evanston, Ill. (Germanic
Phil., Northwestern Univ.)
- 1925 Prof. George H. Danton, Oberlin College, Oberlin, Ohio.
(German)
- 1929 Dr. G. O. S. Darby, Waldo Court, Wellesley, Mass. (French,
Harvard Univ.)
- 1927 Mr. D. Sutherland Davidson, Univ. of Pennsylvania, Philadel-
phia, Pa. (Anthropology)
- 1929 Prof. Edward P. Davis, Howard Univ., Washington, D. C.
(German)
- FM Jaime de Angulo, Esq., 2815 Buena Vista Way, Berkeley, Calif.
(American Linguistics)
- FM Prof. Victor de Beaumont, 73 Queen's Park, Toronto, Canada.
(French, Univ. of Toronto)

- FM Prof. Roy Joseph Deferrari, Catholic Univ., Washington, D. C.
(Latin)
- FM Prof. Norman W. DeWitt, Cornell Univ., Ithaca, N. Y.
(Classics)
- 1925 Rev. Frederick W. Dickinson, College of Mt. St. Joseph, Mount
St. Joseph, Ohio.
- FM Prof. Roland B. Dixon, Peabody Museum, Harvard Univ.,
Cambridge, Mass. (Anthropology)
- FM Prof. Raymond P. Dougherty, 319 Willow St., New Haven,
Conn. (Assyriology, Yale Univ.)
- 1929 Prof. Charles A. Downer, 812 W. 181st St., New York City.
(Romance Langs. and Lit., Coll. of the City of New York)
- FM Prof. Henry Grattan Doyle, George Washington Univ., Wash-
ington, D. C. (Romance Langs.)
- FM Prof. Joseph Dunn, Catholic Univ., Washington, D. C. (Celtic
and Romance Phil.)
- 1929 Mrs. Milton L. Durlach (Theresa M.), 875 Park Av., New York
City.
- 1927 Miss Helen S. Eaton, 79 Washington Place, New York City.
(Linguistic Research Assistant to the International Auxiliary
Language Association)
- SC Prof. Franklin Edgerton, 174 Blake Road, Hamden, Conn.
(Sanskrit, Yale Univ.)
- 1928 Prof. F. C. Edwards, Univ. of Louisville, Louisville, Ky. (Ger-
manic and Romance Langs.)
- 1928 Mr. Arthur G. Eichelberger, Room 203, 32 Waverly Place,
New York City. (Latin, New York Univ.)
- 1929 Mr. Walter J. Eickmann, 446 Twenty-first St., West New York,
N. J. (Latin and Eng., Memorial High School)
- FM Prof. Wallace S. Elden, Ohio State Univ., Columbus, Ohio.
(Latin)
- 1928 Prof. Emeritus H. C. Elmer, Cornell Univ., Ithaca, N. Y.
(Latin)
- 1928 Mr. Murray B. Emeneau, Box 1910 Yale Sta., New Haven, Conn.
(Classics, Yale Univ.)
- 1928 Miss Alma Waldron Erswell, 503 N. Chester Road, Swarthmore,
Pa. (Phonetics)
- FM Prof. Erwin A. Esper, Univ. of Washington, Seattle, Wash.
(Psychology)
- SC Prof. Aurelio M. Espinosa, Stanford Univ., Calif. (Romanic
Langs.)

- FM Mr. B. R. Ewing, Jr., Washington and Lee Univ., Lexington, Va. (Romance Langs.)
- 1926 Prof. Oscar F. W. Fernsemer, Hunter College, 66 Court St., Brooklyn, N. Y. (German)
- 1928 Prof. Gilbert Malcolm Fess, 311 Hitt St., Columbia, Mo. (French, Univ. of Missouri)
- 1927 Prof. Edward Fitch, Hamilton College, Clinton, N. Y. (Greek)
- SC Prof. George T. Flom, 611 W. Green St., Urbana, Ill. (Scandinavian Langs, and Lits., Univ. of Illinois)
- FM Mr. Maynard D. Follin, Box 118, Detroit, Mich.; winter address, Dunedin, Fla.
- FM Prof. Frank H. Fowler, Univ. of Arizona, Tucson, Ariz. (Classical Langs.)
- 1928 Dr. Louise G. Frary, 5049 Dupont Av. South, Minneapolis, Minn.
- FM Prof. Charles C. Fries, 7 Harvard Place, Ann Arbor, Mich. (English, Univ. of Michigan)
- FM Dr. Henry S. Gehman, Princeton Univ., Princeton, N. J. (Semitic Langs.)
- FM Mr. E. A. Gellot, 290 Broadway, New York City. (Artist)
- FM Prof. D. M. Gilbert, Albion College, Albion, Mich. (Modern Langs.)
- 1928 Dr. S. R. Gilcreast, Williams College, Williamstown, Mass. (French and Spanish)
- 1929 Mr. Wilbur E. Gilman, 219 S. Baker Hall, Cornell Univ., Ithaca, N. Y. (English)
- 1928 Prof. F. W. Gingrich, Albright College, Reading, Pa. (Greek)
- 1926 Prof. Charles Goetsch, Univ. of Chicago, Chicago, Ill. (Germanic Phil.)
- FM Rabbi Solomon Goldman, 629 Irving Park Blvd., Chicago, Ill.
- 1927 Miss Jane F. Goodloe, Homewood Apartments, Baltimore, Maryland.
- 1929 Mr. Eugene Gottlieb, Box 3039 Univ. Sta., Columbus, Ohio. (German, Ohio State Univ.)
- 1928 Prof. Willem L. Graff, McGill Univ., Montreal, Canada. (Germanic Langs.)
- 1928 Prof. Charles H. Grandgent, 107 Walker St., Cambridge, Mass. (Romance Langs., Harvard Univ.)
- 1929 Mr. Benjamin F. Gravely, Box 209, Martinsville, Va. (Dealer in Linguistic Books)

- 1925 Prof. Claudine Gray, Hunter College, New York City. (French)
SC Prof. Louis H. Gray, Columbia Univ., New York City. (Oriental Langs.)
- 1928 Prof. Ina May Greer, State Univ. of Iowa, Iowa City, Iowa. (Graduate student in English)
- 1928 Mr. Mack Hall Griffin, Univ. of North Carolina, Chapel Hill, N. C. (Latin and Greek)
- 1926 Prof. Charles Grimm, Williams Col., Williamstown, Mass. (Romanic Langs.)
- 1927 Prof. Wren Jones Grinstead, Univ. of Pennsylvania, Philadelphia, Pa. (Education)
- 1927 Mr. John F. Gummere, Wm. Penn Charter School, Germantown, Philadelphia, Pa. (Languages)
- 1925 Dr. August Günther, Studien-Rat, Lessingstr. 7, Völklingen, Saar. (Lettic)
- FM Prof. Luise Haessler, Butler Hall, 400 W. 119th St., New York City. (German, Hunter College)
- FM Prof. E. Adelaide Hahn, 640 Riverside Drive, New York City, (Greek and Latin, Hunter Col.)
- FM Prof. A. Irving Hallowell, Univ. of Pennsylvania, Philadelphia, Pa. (Anthropology)
- 1929 Prof. H. A. Hamilton, Elmira Coll., Elmira, N. Y. (Classical Phil.)
- 1929 Prof. Miles L. Hanley, Univ. of Wisconsin, Madison, Wisc. (English)
- 1929 Mr. Zellig S. Harris, 5601 Diamond St., Philadelphia, Pa.
- FM Mr. Joel Hatheway, 15 Beacon St., Boston, Mass. (Chairman of the Board of Examiners of the Bureau of Education)
- 1928 Frank Hawley, Esq., 56 Stanley St., Norton-on-Tees, Durham, England.
- 1927 Mr. Paul R. Hays, 510 Hamilton Hall, Columbia Univ., New York City. (Greek and Latin)
- 1926 Dr. R.-M. S. Heffner, 24 Langdon St., Arlington, Mass. (German, Harvard Univ.)
- 1926 Prof. J. W. Hewitt, Wesleyan Univ., Middletown, Conn. (Classics)
- 1929 Mr. Maurice Hicklin, Box 892, Arcata, Humboldt Co., Calif. (English and Journalism, Humboldt State Teachers Coll.)
- 1928 Dr. Archibald A. Hill, Univ. of Michigan, Ann Arbor, Mich. (English)

- 1929 Miss Grace A. Hill, College of the City of Detroit, Detroit, Mich.
(Head of French Dept.)
- 1926 Prof. Raymond T. Hill, 902 Yale Sta., New Haven, Conn.
(French, Yale Univ.)
- FM Prof. Elijah Clarence Hills, Univ. of California, Berkeley, Calif.
(Romance Phil.)
- 1925 Mr. Edward M. Hinton, 720 Blythe Av., Drexel Hill, Pa.
(English, Univ. of Tenn.)
- 1929 Mr. L. S. Hitchcock, Los Alamos Ranch School, Otowi, N.M.
(Headmaster)
- 1927 Prof. Philip K. Hitti, 14 Wilton St., Princeton, N. J. (Semitic
Lit., Princeton Univ.)
- 1929 Rev. P. Michael Hlavčák, St. Vincent Archabbey, Latrobe, Pa.
(Prof. of Latin, Greek, Slovak)
- FM Mr. F. W. Hodge, Musuem of the American Indian, New York
City.
- FM Prof. Urban T. Holmes, Univ. of North Carolina, Chapel Hill,
N. C. (French)
- 1925 Prof. Emeritus E. Washburn Hopkins, 299 Lawrence St., New
Haven, Conn. (Sanskrit and Comparative Phil., Yale Univ.)
- FM Mrs. Francis W. Hopkins (Grace Sturtevant), 548 Orange St.,
New Haven, Conn. (Classics)
- 1926 Prof. Robert C. Horn, Muhlenberg Col., Allentown, Pa. (Greek)
- FM Prof. J. Preston Hoskins, 10 College Road, Princeton, N. J.
(Germanic Langs. and Lit., Princeton Univ.)
- FM Prof. Harry M. Hubbell, 484 Yale Av., New Haven, Conn.
(Greek and Latin, Yale Univ.)
- FM A. M. Huntington, Esq., 1 E. 89th St., New York City.
(Author) Benefactor, 1927.
- 1926 Mr. Stephen A. Hurlbut, St. Alban's School, Washington,
D. C. (Latin and Greek)
- FM Mr. William A. Hurwitz, 2614 N. 16th St., Philadelphia, Pa.
(Languages, W. Phila. High School)
- 1926 Prof. H. Hyvernat, 3405 Twelfth St., N. E., Brookland, D. C.
(Semitic Langs. and Lits., Catholic Univ.)
- FM Prof. Sanki Ichikawa, 25 Kitayamabushicho, Ushigome, Tokyo,
Japan. (English, Tokyo Imperial Univ.)
- 1927 Mr. Charles P. Iwanicki, 788 N. Taney St., Philadelphia, Pa.
- 1928 Prof. A. V. Williams Jackson, Columbia Univ., New York City.
(Indo-Iranian Langs.)

- 1929 Prof. Jess H. Jackson, College of William and Mary, Williamsburg, Va. (English)
- FM Prof. Cary F. Jacob, 10 West St., Northampton, Mass. (Spoken English, Smith Col.)
- 1928 Dr. Melville Jacobs, Univ. of Washington, Seattle, Wash. (Anthropology)
- 1928 Mr. Sidney Jaffe, 5365 Diamond St., Philadelphia, Pa.
- 1929 Prof. Russell P. Jameson, Oberlin Coll., Oberlin, Ohio. (Romance Langs.)
- 1929 Mr. Vincent F. Jankauskas, 1226 Bloomfield St., Hoboken, N. J. (Etruscan)
- 1928 Prof. T. Atkinson Jenkins, 5411 Greenwood Av., Chicago, Ill. (History of the French Lang., Univ. of Chicago)
- FM Mr. Waldemar Jochelson, American Museum of Natural History, New York City. (East Siberian and Aleutian Dialects)
- 1929 Dr. E. J. Johns, 149 Greenwich Av., Greenwich, Conn. (Spanish, Univ. of Fla.)
- 1929 Prof. Edwin Lee Johnson, College Hall, Vanderbilt Univ., Nashville, Tenn. (Latin and Greek)
- 1927 Prof. Oliver M. Johnston, Box 1132, Stanford University, Calif. (Romanic Langs.)
- 1929 Prof. Marguerite E. Jones, Hunter Collège, Park Av. and 68th St., New York City. (Speech)
- FM Prof. Oscar L. Keith, Univ. of South Carolina, Columbia, S. C. (Romance Langs.)
- FM Prof. May Lansfield Keller, Westhampton College, Univ. of Richmond, Va. (English)
- FM Miss Ruth M. Keller, 568 S. Champion Av., Columbus, Ohio.
- 1925 Prof. G. D. Kellogg, Union Col., Schenectady, N. Y. (Latin)
- FM Prof. Robert J. Kellogg, Ottawa Univ., Ottawa, Kans. (Modern Langs. and Linguistics)
- FM Prof. John M. Kelso, Williamsport, Pa.
- 1928 Prof. Hayward Keniston, Univ. of Chicago, Chicago, Ill. (Spanish Lang.)
- FM Prof. Arthur G. Kennedy, 435 Coleridge Av., Palo Alto, Calif. (English Phil., Stanford Univ.)
- SC Prof. Roland G. Kent, Univ. of Pennsylvania, Philadelphia, Pa. (Comparative Phil.) Life Member, 1927.
- 1929 Prof. John S. Kenyon, Hiram College, Hiram, Ohio. (English)
- FM Mr. J. Alexander Kerns, Washington Sq. Coll., New York Univ., New York City. (Latin)

- 1927 Prof. Watson Kirkconnell, Wesley College, Univ. of Manitoba, Winnipeg, Canada. (English)
- FM Mr. Eugene Klein, 200 S. 13th St., Philadelphia, Pa. (Philatelist; collector of Oriental manuscripts)
- 1927 Prof. James A. Kleist, St. Louis Univ., Grand and Pine Blvds., St. Louis, Mo. (Classical Langs.)
- FM Prof. Charles Knapp, 1737 Sedgwick Av., New York City. (Greek and Latin, Columbia Univ.)
- FM Prof. William E. Knickerbocker, College of the City of New York, New York City. (Romance Langs.)
- 1926 Mrs. Elizabeth Knott (Mrs. J. P.), 7735 Haskins Av., Chicago, Ill. (Classical Archaeology)
- 1926 Mr. T. A. Knott, 30 Firglade Av., Springfield, Mass. (General Editor of Webster's New International Dictionary)
- 1929 Mr. Richard Knowles, St. Mark's School, Southborough, Mass. (Master of Langs.)
- 1929 Mr. Edwin O. Koch, 1010 E. Kankakee St., Keokuk, Ill. (Latin)
- 1929 Mr. Richard Koch, 907 S. 16th St., Newark, N. J.
- FM Prof. Selma S. König, 38 Breese Terrace, Madison, Wisc. (Graduate student in German and French, Univ. of Wisconsin)
- FM Mr. Franklin B. Krauss, Univ. of Pennsylvania, Philadelphia, Pa. (Latin)
- SC Prof. A. L. Kroeber, Univ. of California, Berkeley, Calif. (Anthropology)
- 1926 Prof. Samuel Kroesch, Univ. of Minnesota, Minneapolis, Minn. (German)
- FM Prof. Hans Kurath, Ohio State Univ., Columbus, Ohio. (German)
- FM Prof. A. G. Laird, Univ. of Wisconsin, Madison, Wis. (Greek)
- 1927 Prof. Emeritus Henry R. Lang, Box 176, Yale Sta., New Haven, Conn. (Romance Langs. and Lits., Yale Univ.)
- FM Prof. Philippe de La Rochelle, Columbia Univ., New York City. (French)
- 1928 Prof. Henning Larsen, Woodlawn Apts., Iowa City, Iowa. (English, State Univ. of Iowa)
- FM Dr. Berthold Laufer, Field Museum of Natural History, Chicago, Ill. (Eastern Asiatic Langs.)
- FM Prof. Emory B. Lease, Hudson View Gardens, 183d St. and Pinehurst Av., New York City. (Classical Langs., Col. of City of New York)

- FM Miss Mary S. Lee, 879 Wynnewood Road, Philadelphia, Pa.
(Latin, W. Phila. High School)
- 1929 Prof. Harry J. Leon, Univ. of Texas, Austin, Tex. (Classical
Langs.)
- 1928 Prof. W. Leopold, Williams College, Williamstown, Mass.
(German)
- 1927 Dr. Fang-Kuei Li, care of Dr. Yi Li, Medical Institute, Sun Yat-
sen Univ., Canton, China.
- SC Prof. M. H. Liddell, 224 Waldron St., West Lafayette, Ind.
(English, Purdue Univ.)
- 1928 Mr. Edward Y. Lindsay, 69 N. Prospect St., Burlington, Vt.
(Latin, Univ. of Vermont)
- 1927 Prof. Charles E. Little, Peabody College, Nashville, Tenn.
(Latin)
- FM Mrs. Robert M. Littlejohn (Rebecca Bolling), 23 E. 67th St.,
New York City. Benefactor, 1927.
- 1926 Mrs. Harriet Allison Loeb (Mrs Edwin M.), 97 Tamalpais
Road, Berkeley, Calif. (Anthropology)
- 1926 Prof. Wesley R. Long, Tarkio College, Tarkio, Mo. (Modern
Langs.)
- SC Prof. C. M. Lotspeich, Univ. of Cincinnati, Cincinnati, Ohio.
(Comparative and English Phil.)
- FM Prof. Clarence G. Lowe, Univ. of Nebraska, Lincoln, Neb.
(Classics)
- FM Prof. Wm. F. Luebke, Univ. of Denver, Denver, Colo. (English)
- 1927 Prof. Max A. Luria, 497 Kosciusko St., Brooklyn, N. Y. (Span-
ish, Col. of the City of New York)
- 1929 Dr. David I. Macht, care of Hynson, Westcott & Dunning,
Baltimore, Md. (Pharmacological Research; also Lecturer in
Clinical Pharmacology, Johns Hopkins Univ.)
- FM Dr. R. C. MacMahon, 78 W. 55th St., New York City. (Biblio-
phile and Bookseller.) Died on April 9, 1929.
- 1928 Prof. Grace Harriet Macurdy, Vassar College, Poughkeepsie,
N. Y. (Greek)
- 1927 Prof. Ralph V. D. Magoffin, New York Univ., University
Heights, New York City. (Classics)
- FM Prof. Gaston Louis Malécot, Washington and Jefferson Col.,
Washington, Pa. (Romance Langs.)
- FM Prof. Kemp Malone, Johns Hopkins Univ., Baltimore, Md.
(English)

- SC Prof. John M. Manly, Univ. of Chicago, Chicago, Ill. (English)
- FM Prof. Clarence A. Manning, 25 East View Av., Pleasantville, N. Y. (Slavonic Langs., Columbia Univ.)
- FM Prof. Ralph Marcus, 160 Claremont Av., New York City. (Semitic Langs. and Hellenistic Judaism, Jewish Institute of Religion; Lecturer on Semitics Langs., Columbia Univ.)
- 1927 Mr. J. V. Martin, 10 Aoyama Gakuin, Tokyo, Japan.
- FM Prof. Nicholas N. Martinovitch, Columbia Univ., New York City. (Slavonic and Oriental Langs.)
- 1926 Dr. J. Alden Mason, Univ. of Penna. Museum, Philadelphia, Pa. (Curator, American Section)
- FM Prof. E. K. Maxfield, 311 E. Beau St., Washington, Pa. (English, Washington and Jefferson Col.)
- FM Prof. Nelson G. McCrea, Columbia Univ., New York City. (Latin)
- 1927 Prof. Ida Kruse McFarlane, 1473 Gilpin St., Denver, Colo. (English Lit., Univ. of Denver)
- 1929 Mr. C. M. McLean, 3 Chestnut St., Binghamton, N. Y.
- 1926 Mr. O. W. McMillen, Director of Canton Union Language School, Canton, China.
- FM Prof. Clarence W. Mendell, Yale Univ., New Haven, Conn. (Latin Lang. and Lit.)
- 1926 Prof. Edgar A. Menk, Ball State Teachers College, Muncie, Ind. (Latin; Head of Foreign Lang. Dept.)
- FM Prof. Robert J. Menner, 1827 Yale Sta., New New Haven, Conn. (English, Yale Univ.)
- FM Prof. E. H. Mensel, 146 Elm St., Northampton, Mass. (Germanic Langs. and Lits., Smith Col.)
- FM Prof. Albert Douglas Menut, Syracuse Univ., Syracuse, N. Y. (Romance Langs.)
- FM Prof. Samuel A. B. Mercer, Trinity College, Toronto, Canada (Semitic Langs. and Egyptology); summer address, Grafton, Mass.
- 1925 Prof. W. S. Messer, Dartmouth Col., Hanover, N. H. (Latin)
- 1927 Prof. Charles A. Messner, State Teachers College, Buffalo, N. Y. (Latin)
- 1928 Mr. Leopold L. Meyer, Foley Bros. Dry Goods Co., Houston, Tex. (Pres., National Retail Credit Assn.)
- 1929 Prof. F. Mezger, Box 4, Bryn Mawr, Pa. (German, Bryn Mawr Col.)

- SC Prof. Truman Michelson, Smithsonian Institution, Washington, D. C. (Ethnology, George Washington Univ.; Ethnologist, Smithsonian Inst.)
- 1929 Mr. Antonio A. Micocci, 4648 Ella St., Philadelphia, Pa. (Latin)
- FM Prof. C. W. E. Miller, Johns Hopkins Univ., Baltimore, Md. (Greek)
- 1927 Prof. Philip S. Miller, Lincoln University P. O., Pa. (Latin, Lincoln Univ.)
- FM Mr. Louis A. Mischkind, Box 154, Wilmington, Del. (Rabbi)
Died in May, 1929.
- 1927 Prof. B. S. Monroe, Cornell Univ., Ithaca, N. Y. (English)
- FM Prof. Samuel Moore, 1503 Cambridge Road, Ann Arbor, Mich. (English, Univ. of Michigan)
- 1927 F. Corlies Morgan, Esq., 8625 Montgomery Av., Chestnut Hill, Philadelphia, Pa. (Treasurer of the Univ. of Pennsylvania)
- 1929 Prof. A. R. Morris, Univ. of Michigan, Ann Arbor, Mich. (Rhetoric)
- 1927 Mr. Dave H. Morris, 19 E. 70th St., New York City. (Lawyer)
- FM Mrs. Dave Hennen Morris, 19 E. 70th St., New York City. (International Auxiliary Language)
- FM Prof. Henri F. Muller, Barnard College, New York City. (French)
- FM Prof. Otto Müller, Gettysburg College, Gettysburg, Pa. (Romance Langs.)
- 1928 Miss Florence M. Newham, 137 W. 69th St., New York City. (Etymology of medical and biological technical terms)
- FM Prof. Edward W. Nichols, Dalhousie College, Halifax, Nova Scotia. (Classics)
- 1925 Prof. Wm. A. Nitze, 1220 E. 56th St., Chicago, Ill. (Romance Langs., Univ. of Chicago)
- 1926 Prof. Clark S. Northup, 407 Elmwood Av., Ithaca, N. Y. (English, Cornell Univ.)
- 1926 Prof. G. R. Noyes, 1486 Greenwood Terrace, Berkeley, Calif. (Slavonic Langs., Univ. of California)
- 1925 Prof. Alois Richard Nykl, Oriental Institute, Univ. of Chicago, Chicago, Ill. (Romance Langs., Arabic, General Linguistics)
- 1929 Mr. Wilbur H. Oda, Germantown Academy, Germantown, Philadelphia, Pa.
- FM Prof. Merle M. Odgers, Univ. of Pennsylvania, Philadelphia, Pa. (Latin)

- FM Dr. Felix von Oefele, 326 E. 58th St., New York City. (Medical Chemist)
- FM Dr. Charles J. Ogden, 628 W. 114th St., New York City. (Indo-Iranian)
- 1929 C. K. Ogden, Esq., Royal Societies Club, St. James's St., London S.W.1, England.
- 1925 Prof. M. B. Ogle, Ohio State Univ., Columbus, Ohio. (Classical Langs.)
- 1925 Prof. W. A. Oldfather, Univ. of Illinois, Urbana, Ill. (Classical Langs.)
- FM Prof. Samuel Grant Oliphant, 520 Stewart Av., Grove City, Pa. (Greek and Sanskrit, Grove City College)
- FM John Rathbone Oliver, M.D., Latrobe Apts., Read and Charles Sts., Baltimore, Md. (Physician, Psychiatrist, Criminologist)
- 1929 Prof. Anders Orbeck, Univ. of Rochester, Rochester, N. Y. (English)
- 1929 Miss Lydia Palmerini, Hunter College, Park Av. and 68th St., New York City.
- FM Prof. Roscoe E. Parker, Univ. of Tennessee, Nashville, Tenn. (English)
- FM Prof. C. E. Parmenter, Univ. of Chicago, Chicago, Ill. (Romance Langs.)
- FM Dr. John J. Parry, 805 W. Iowa St., Urbana, Ill. (English, Univ. of Illinois)
- 1927 Prof. Milman Parry, 14 Shepard St., Cambridge, Mass. (Greek and Latin, Harvard Univ.)
- FM Dr. Elsie Clews Parsons, Harrison, N. Y. (Anthropologist)
- 1925 Prof. Clarence Paschall, Univ. of California, Berkeley, Calif. (German)
- 1929 Prof. Richard H. Paynter, 395 Grand Av., Brooklyn, N. Y. (Social and Abnormal Psychology, Long Island Univ.)
- 1929 Mr. Mario A. Pei, 502 W. 139th St., New York City. (Romance Langs., Coll. of the City of New York)
- FM Mr. Wallace W. Perkins, 937 Main St., Woburn, Mass. (French, Butler Univ., Indianapolis)
- FM Rev. T. C. Petersen, Catholic Univ. of America, Washington, D. C. (Semitics)
- SC Prof. Walter Petersen, 611 Burlington Road, York, Neb. (Indo-Eur. Linguistics)

- 1929 John Phelps, Esq., 3 E. Lexington St., Baltimore, Md. (Lawyer; English Lang.)
- 1925 Robert Morris Pierce, 15 W. 18th St., New York City. (Author)
- FM Dr. George A. Plimpton, 70 Fifth Av., New York City. (Publisher)
- 1928 Mr. Horace I. Poleman, 402 Green Lane, Roxborough, Philadelphia, Pa. (Graduate student in Latin and Linguistics, Univ. of Penna.)
- 1929 Miss Mabel H. Pollitt, Eastern Ky. State Teachers Coll., Richmond, Ky. (Head of Dept. of Foreign Langs.)
- FM Prof. Louise Pound, Univ. of Nebraska, Lincoln, Neb. (English)
- 1928 Mr. H. M. Poynter, Phelps House, Andover, Mass. (Latin, Andover Acad.)
- FM Prof. Henrietta Prentiss, Hunter College, New York City. (Speech and Dramatics)
- 1927 Prof. Francis R. Preveden, 6455 Ellis Av., Chicago, Ill. (DePaul Univ.; research asst. in Comp. Philology, Univ. of Chicago)
- 1929 Prof. Hereward T. Price, Univ. of Michigan, Ann Arbor, Mich. (English)
- 1926 Prof. Lester M. Prindle, 475 Main St., Burlington, Vt. (Latin, Univ. of Vermont)
- SC Prof. Edward Prokosch, Yale Univ., New Haven, Conn. (Germanic Langs.)
- 1925 Prof. Lawrence Pumpelly, 604 E. Buffalo St., Ithaca, N. Y. (Romance Langs., Cornell Univ.)
- 1928 Prof. Paul Radin, Fisk Univ., Nashville, Tenn. (Anthropology)
- 1929 Mr. Joseph J. Raymond, Graduate Coll., Princeton, N. J.
- 1926 Mr. Allen Walker Read, St. Edmund Hall, Oxford, England. (English)
- 1926 Prof. Homer F. Rebert, Amherst Col., Amherst, Mass. (Latin)
- FM Prof. Nathaniel Julius Reich, 309 N. 33d St., Philadelphia, Pa. (Egyptology, Dropsie Col.)
- 1929 Prof. Gladys A. Reichard, Barnard Coll., New York City. (Anthropology)
- FM Prof. Arthur F. J. Remy, Columbia Univ., New York City. (Germanic Phil.)
- 1928 Dr. Karl Reuning, Michaelisstr. 113, Breslau 16, Germany. (Anglistik, Univ. of Breslau)

- 1928 Mr. Allan Lake Rice, 4217 Osage Av., Philadelphia, Pa. (Graduate student in IE Linguistics, Univ. of Penna.)
- 1928 Prof. Carlton C. Rice, Catawba College, Salisbury, N. C. (Romance Langs.)
- FM Mrs. Edward Norris Rich, Jr. (Charlotte Townsend Littlejohn), 110 University Parkway, Baltimore, Md. Benefactor, 1927.
- 1926 Prof. Henry Brush Richardson, 202 Yale Sta., New Haven, Conn. (French, Yale Univ.)
- 1925 Prof. Ernst Riess, Hunter Col., New York City. (Classical Langs.)
- 1925 Prof. D. M. Robinson, Johns Hopkins Univ., Baltimore, Md. (Archaeology, Epigraphy, Greek Lit.)
- 1926 Prof. Fred N. Robinson, Longfellow Park, Cambridge, Mass. (English, Harvard Univ.)
- FM Jas. Renwick Rodgers, Esq., 400 Walnut St., Philadelphia, Pa. (Insurance Broker.) Died on April 13, 1929.
- 1929 Prof. Edwin C. Roedder, College of the City of New York, New York City. (Germanic Lang. and Lit.)
- 1928 Mr. Harold Rosen, 5755 N. 12th St., Philadelphia, Pa. (Latin)
- FM Prof. S. L. Millard Rosenberg, Univ. of California at Los Angeles, Los Angeles, Calif. (Spanish)
- 1929 Mr. Lessing J. Rosenwald, care of Sears Roebuck & Co., Roosevelt Blvd., Philadelphia, Pa.
- FM Prof. G. Oscar Russell, Ohio State Univ., Columbus, Ohio. (Romance Langs.)
- 1927 Prof. Leo Erval Saidla, 95 Livingston St., Brooklyn, N. Y. (English, Brooklyn Polytechnic Inst.)
- FM Prof. Else M. Saleski, St. Lawrence Univ., Canton, N. Y. (German)
- 1928 Dr. Mary Saleski, Bethany College, Bethany, W. Va. (German)
- FM Prof. R. E. Saleski, 3801 Walnut St., Philadelphia, Pa. (Research Fellow in IE Philology, Univ. of Penna.; Prof. of German, Bethany College, Bethany, W. Va.)
- SC Prof. Edward Sapir, Univ. of Chicago, Chicago, Ill. (Anthropology and General Linguistics)
- 1928 Prof. John A. Sawhill, State Teachers College, Harrisonburg, Va. (Latin)
- FM Prof. Nathaniel Schmidt, Cornell Univ., Ithaca, N. Y. (Semitic Langs. and Oriental History)
- FM Prof. Alexander H. Schutz, Ohio State Univ., Columbus, Ohio (Romance Langs.)

- FM Mr. C. R. J. Scott, Univ. of Pennsylvania, Philadelphia, Pa. (Latin)
- FM Prof. Emeritus Fred Newton Scott, 1741 East Fourth St., Tucson, Ariz. (Rhetoric and Journalism, Univ. of Michigan)
- FM Prof. H. F. Scott, Ohio Univ., Athens, O. (Classical Langs.)
- 1928 Prof. Kenneth Scott, 1492 Taylor Road, Cleveland, Ohio. (Latin and Greek, Western Reserve Univ.)
- FM Prof. Robert D. Scott, Univ. of Nebraska, Lincoln, Neb. (English Dramatic Lit.)
- 1926 Prof. Edward H. Sehart, George Washington Univ., Washington, D. C. (German)
- FM Prof. Ovid R. Sellers, 846 Chalmers Place, Chicago, Ill. (Hebrew and Old Testament, McCormick Theological Seminary)
- FM Prof. W. T. Semple, 315 Pike St., Cincinnati, Ohio. (Classics, Univ. of Cincinnati)
- 1929 Prof. E. B. Setzler, Newberry College, Newberry, S. C. (English)
- FM Prof. J. E. Shaw, Univ. of Toronto, Toronto, Canada. (Italian and Spanish)
- FM Prof. Percy V. D. Shelly, Univ. of Pennsylvania, Philadelphia, Pa. (English)
- FM Prof. Willaim P. Shepard, Hamilton Col., Clinton, N. Y. (Romance Langs.)
- FM Dean L. A. Sherman, Univ. of Nebraska, Lincoln, Neb. (English Lit.)
- FM Mr. George W. H. Shield, 1537 W. 46th St., Los Angeles, Calif. (Supervisor of Modern Langs., City Schools)
- FM Prof. Daniel B. Shumway, Univ. of Pennsylvania, Philadelphia, Pa. (German Phil.)
- 1925 Prof. George William Small, Univ. of Maine, Orono, Me. (English)
- 1929 Mr. Leon P. Smith Jr., Univ. of Chicago, Chicago, Ill. (Romance Langs.)
- FM Dr. Maria W. Smith, 1529 Spruce St., Philadelphia, Pa. (Latin, Temple Univ.)
- FM Prof. Antonio G. Solalinde, Centro de Estudios Historicos, Almagro 26, Madrid, Spain. (Romance Langs.)
- FM Prof. Frank G. Speck, Univ. of Pennsylvania, Philadelphia, Pa. (Anthropology)

- FM Prof. E. A. Speiser, Univ. of Pennsylvania, Philadelphia, Pa.
(Semitics)
- 1929 Prof. James A. Spenceley, Univ. of Western Ontario, London,
Ont., Canada. (English)
- FM Arthur R. Spencer, Esq., Univ. of Pennsylvania, Philadelphia,
Pa. (Asst. to Dean of the College)
- 1925 Miss Esther Jean Spencer, Box 2595, Los Angeles, Calif. (Latin,
Lincoln High School, Los Angeles)
- FM Prof. Taylor Starck, 32 Bowdoin St., Cambridge, Mass. (Ger-
man, Harvard Univ.)
- 1925 Prof. J. B. Stearns, 4 College St., Hanover, N. H. (Latin and
Greek, Dartmouth Col.)
- FM Prof. Guido H. Stempel, 723 S. Park Av., Bloomington, Ind.
(Comparative Phil., Indiana Univ.)
- 1928 Mr. J. Frank Stimson, Boîte 59, Papeete, Tahiti, French Oceania.
(Research Asst., Ethnology and Linguistics, Bishop Museum,
Honolulu)
- FM Prof. Harold S. Stine, 242 E. Durham St., Philadelphia, Pa.
(English, Univ. of Pennsylvania)
- 1929 Mr. Luzerne L. Stirling, 160 Alden Av., New Haven, Conn.
(Classics) Died May 25, 1929.
- 1928 Mr. Arthur C. Streufert, 1243 Marshall Av., St. Paul, Minn.
- 1928 Mr. George K. Strodach, 6906 Henley St., Philadelphia, Pa.
(Latin, Univ. of Pennsylvania)
- 1926 Prof. Cony Sturgis, Box 6, Oberlin, Ohio. (Spanish, Oberlin
Col.)
- FM Prof. Albert Morey Sturtevant, 924 Louisiana St., Lawrence,
Kans. (Germanic Langs. and Lits., Univ. of Kansas)
- SC Prof. Edgar Howard Sturtevant, 1849 Yale Sta., New Haven,
Conn. (Linguistics, Yale Univ.)
- 1928 Mr. L. L. Stutzmann, Albright College, Reading, Pa. (German)
- SC Dr. John R. Swanton, Smithsonian Institution, Washington,
D. C. (Ethnologist)
- 1928 Prof. T. Takehara, 60, Harada-Mura, Nishinada, Kobe, Japan.
- 1926 Prof. Rollin H. Tanner, New York Univ., University Heights,
New York City. (Classics)
- FM Prof. Helen H. Tanzer, 208 E. 15th St., New York City. (Clas-
sics, Hunter Col.)
- 1929 Prof. Pauline Taylor, New York Univ., Washington Sq., New
York City. (French)

- FM Mr. Nainsinh Thakar, 5719 Nineteenth St., Brooklyn, N. Y.
(Comp. Linguistics)
- 1929 Mr. C. K. Thomas, Goldwin Smith Hall, Ithaca, N. Y. (Public
Speaking, Cornell Univ.)
- 1927 Prof. Charles C. Torrey, 191 Bishop St., New Haven, Conn.
(Semitic Langs., Yale Univ.)
- 1929 Prof. Alfred M. Tozzer, 7 Bryant St., Cambridge, Mass. (An-
thropology, Harvard Univ.)
- 1929 Dr. R. Whitney Tucker, 210 Dryden Road, Ithaca, N. Y. (Clas-
sics, Cornell Univ.)
- 1928 Prof. Frederick Tupper, Univ. of Vermont, Burlington, Vt.
(English)
- FM Prof. Milton Haight Turk, 40 Park Place, Geneva, N. Y. (Eng-
lish, Hobart Col.)
- 1928 Prof. Pauline Turnbull, 4607 Fernhill Road, Philadelphia, Pa.
(Latin, Univ. of Richmond; graduate student in Latin, Univ.
of Penna.)
- FM Edwin H. Tuttle, Esq., The Gelhave, 405 Tenth St. N. E.,
Washington, D. C.; summer address, 105 Ridge Road, North
Haven, Conn. (Writer)
- FM Prof. Axel Johann Uppvall, Univ. of Pennsylvania, Philadelphia,
Pa. (Scandinavian Langs.)
- 1929 Miss Gertrude van Adestine, 150 Atkinson Av., Detroit, Mich.
(Supervising Principal, Detroit Day School for the Deaf)
- FM Prof. Harry B. Van Deventer, Univ. of Pennsylvania, Phila-
delphia, Pa. (Latin)
- 1926 Prof. George Van Santvoord, Hotchkiss School, Lakeville, Conn.
(Headmaster)
- 1925 Prof. H. H. Vaughan, Univ. of California, Berkeley, Calif.
(Italian)
- 1927 Prof. Ernst Voss, 173 Virginia Terrace, Madison, Wis. (German
Philology, Univ. of Wisconsin)
- 1928 Mr. Guenter K. Wagner, 12 Moosdorfstr., Berlin S.O. 33,
Germany. (Anthropology)
- 1928 Samuel Frye Walcott, Esq., 139 Federal St., Salem, Mass.
(Teacher of Music, Lawyer, Linguist)
- 1926 Prof. John A. Walz, 42 Garden St., Cambridge, Mass. (German
Lang. and Lit., Harvard Univ.)
- FM Mr. James R. Ware, 173 Blvd. St.-Germain, Paris, France.
(Fellow in Chinese in the Harvard-Yenching Institute)

- 1927 Miss Florence Waterman, The Winsor School, Pilgrim Road,
Boston, Mass. (Greek and Latin)
- FM Prof. Albert P. Weiss, Ohio State Univ., Columbus, Ohio.
(Psychology)
- 1927 Prof. Camille E. Werling, Univ. of Denver, Denver, Colo.
(Romance Langs.)
- 1929 Prof. T. G. Wesenberg, Butler College, Indianapolis, Ind.
(Romance Langs.)
- 1927 Mr. H. Theodric Westbrook, Hamilton Hall, Columbia Univ.,
New York City. (Classics)
- FM Prof. M. N. Wetmore, Williams College, Williamstown, Mass.
(Latin)
- 1927 Prof. Joshua Whatmough, 11 D Morris Hall, Soldiers Field
Sta., Boston, Mass. (Comp. Philology, Harvard Univ.)
- 1929 Mr. Benjamin L. Whorf, 320 Wolcott Hill Road, Wethersfield,
Conn. (Nahuatl Langs. and General Linguistics)
- FM Judge James Wickersham, Juneau, Alaska. (Attorney at Law)
- 1926 Mr. Rowse B. Wilcox, Univ. of Nebraska, Lincoln, Neb.
(English)
- 1929 Prof. Rudolph Willard, 1875 Yale Sta., New Haven, Conn.
(English Lit., Yale Univ.)
- 1928 Prof. Blanche Colton Williams, Hunter Col., New York City.
(English)
- FM Prof. Charles Allyn Williams, 714 W. Nevada St., Urbana, Ill.
(German, Univ. of Illinois)
- 1927 Prof. Edwin B. Williams, College Hall, Univ. of Penna., Phila-
delphia, Pa. (Romanic Langs.)
- FM Prof. Edward J. Williamson, 40 Park Place, Geneva, N. Y.
(Modern Langs., Hobart Col.)
- FM Prof. Ola Elizabeth Winslow, Goucher Col., Baltimore, Md.
(English)
- 1926 Prof. Clark Wissler, Kent Hall, New Haven, Conn. (Anthro-
pology and Psychology, Yale Univ.)
- 1926 Mr. H. Rey Wolf, 16 School Lane, Ardmore, Pa. (Latin, S.
Phila. High School)
- 1928 Stuart N. Wolfenden, Esq., care of Messrs. Ward Perks and
Terry, 85 Gracechurch St., London E. C., England. (Tibeto-
Burman Langs.)
- FM Prof. Emeritus Francis A. Wood, La Jolla, Calif. (Germanic
Phil., Univ. of Chicago)

- 1928 Dr. Frederic T. Wood, 1421 East 58th St., Chicago, Ill. (Research assistant in Comp. Phil., Univ. of Chicago)
 FM Prof. Willis P. Woodman, 808 Main St., Geneva, N. Y. (Latin, Hobart Col.)
 FM Prof. James Haughton Woods, 29 Follen St., Cambridge, Mass. (Philosophy, Harvard Univ.)
 FM Prof. Wm. F. Wyatt, Tufts College, Mass. (Greek)
 1927 Prof. Edward Yoder, Hesston Col., Hesston, Kan. (Latin and Greek)
 FM Mr. W. I. Zeitler, 68 N. Pearl St., Albany, N. Y. (English)
 1929 Prof. A. J. Friedrich Zieglschmid, State Univ. of Iowa, Iowa City, Iowa. (German)

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Philadelphia, Pa.: Library of Temple University, Broad and Berks Sts.
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Austria: Vienna: Universitätsbibliothek.
Belgium: Brussels: Library of the Fondation Universitaire, 11 rue d'Egmont.
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Canada: Montreal: Library of McGill University.
Canada: Ottawa: Library of the Geological Survey.
Canada: Toronto: Library of the University of Toronto.
Canada: Toronto: Library of Victoria College.
Czechoslovakia: Prague: Bibliotheque Publique et d'Université, Mar-
ianske Namesti 5.
Czechoslovakia: Prague: Library of the English Seminary, University
of Prague.
England: Cambridge: Library of the University.
England: Oxford: Bodleian Library.
Finland: Helsingfors: Library of the University of Finland.
France: Paris: Bibliothèque de l'Ecole Nationale des Langues Orien-
tales Vivantes, 2 rue de Lille.
Germany: Berlin: Preussische Staats-Bibliothek.
Germany: Berlin: Universitäts-Bibliothek, Dorotheenstr. 81.

- Germany: Breslau: Staats- und Universitäts-Bibliothek. (1928)
 Germany: Freiburg i. Br.: Universitäts-Bibliothek.
 Germany: Göttingen: Universitäts-Bibliothek.
 Germany: Halle: Universitäts-Bibliothek.
 Germany: Hamburg: Staats- und Universitäts-Bibliothek.
 Germany: Köln: Universitäts- und Stadtbibliothek, Gereonskloster 12.
 Germany: Leipzig: Universitäts-Bibliothek.
 Germany: Marburg: Universitäts-Bibliothek.
 Germany: München: Bayerische Staatsbibliothek, Ludwigstr. 23.
 Germany: München: Seminar für indogermanische Sprachwissenschaft, Universität.
 Germany: München: Universitäts-Bibliothek.
 Hungary: Debreczen: Mittelschullehrerbildungsanstalt.
 India: Madras: University Library, Senate House, Triplicane.
 Italy: Rome: Library of the American Academy in Rome, Porta San Pancrazio, Roma 29.
 Japan: Tokyo: Library of the College of Literature, Tokyo Imperial University. (1929)
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 Poland: Lwow: Bibliothèque de l'Université. (1927)
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 U.S.S.R.: Moscow: Institut K. Marksa i. F. Engelsa, UL. Marksa i Engelsa 5, Moscow 19. (1929)
 U.S.S.R.: Moscow: Kom. Akademia, Biblioteka, Znamenka 11. (1929)
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EXCHANGES, REVIEWS, AND INSTITUTIONS ON THE COMPLIMENTARY LIST

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- 1925 Baltimore, Md.: *American Speech*, care of Waverly Press.
 1925 Chicago, Ill.: *Modern Philology*, Box Y, Univ. of Chicago.
 1927 Los Angeles, Calif.: *Italica*, care of Prof. H. D. Austin, Univ. of Southern California.

- 1925 Los Angeles, Calif.: *The Modern Languages Forum*, 1240 S. Main St.
- 1926 New York City: *Revue Hispanique*, care of Hispanic Society of America, 156th St. West of Broadway, New York City.
- 1926 Philadelphia, Pa.: *Jewish Quarterly Review*, care of Dropsie College.
- 1927 Stanford University, Calif.: *Hispania*, care of Prof. A. M. Espinosa.
- 1929 Washington, D. C.: American Council of Learned Societies, 907 Fifteenth St.
- 1925 Washington, D. C.: Periodical Division, Library of Congress.
- 1925 Washington, D. C.: Smithsonian Institution, *Publications in Anthropology*.
- 1929 Austria: Innsbruck: *Bibliotheca Africana* and *Innsbrucker Jahrbücher für Völkerkunde und Sprachwissenschaft*, Innallee 11.
- 1925 Austria: Innsbruck: *Philological Publications* of the Univ. of Innsbruck.
- 1925 Austria: St. Gabriel-Mödling bei Wien: *Anthropos*.
- 1925 Belgium: Heverlee-Leuven: *Leuvense Bijdragen*, 158 Naamsche Steenweg.
- 1925 Belgium: Louvain: *Le Muséon*, 2 rue de l'Ecluse.
- 1929 Czechoslovakia: Prague: *Archiv Orientální*, Orientální Ustav.
- 1927 Czechoslovakia: Prague: *Slavia*, Brehova 5.
- 1927 Denmark: Copenhagen: *Acta Philologica Scandinavica*, Gl. Vartovvej 20, Hellerup.
- 1929 England: London: *Asiatica*, care of Kegan Paul Trench Trubner & Co., 38 Great Russell St., W.C.1.
- 1925 England: London: *Le Maître Phonétique*, care of Prof. Daniel Jones, University College, Gower St., London W. C. 1.
- 1925 England: London: *Man*, care of the Royal Anthropological Institute, 52 Upper Bedford Place, Russell Sq., London W. C. 1.
- 1929 France: Bordeaux: *Bulletin Hispanique*, 20 cours Pasteur.
- 1929 France: Montpellier: *Revue des Langues Romanes*, 12 rue des Carmes.
- 1925 France: Paris: Association Guillaume Budé, 95 Boulevard Raspail.
- 1925 France: Paris: *Publications de la Société des Américanistes de Paris*, 61 rue de Buffon.

- 1926 France: Paris: *Bulletin de la Société de Linguistique de Paris*, à la Sorbonne.
- 1929 France: Paris: *Hespéris, Archives Berbères et Bulletin de l'Institut des Hautes-Etudes Marocaines*, care of Librairie LaRose, 11 rue Victor-Cousin.
- 1925 France: Strasbourg: *Publications of the Institut de Linguistique Indo-européenne*, 1 rue Grandidier.
- 1928 Germany: Berlin: *Archiv für Orientforschung*, Babelsbergerstr. 48, Berlin-Wilmersdorf.
- 1926 Germany: Berlin: *Gnomon*, bei der Weidmannschen Buchhandlung.
- 1926 Germany: Berlin: *Indogermanische Forschungen*, bei W. de Gruyter & Co., Genthinerstr. 38.
- 1926 Germany: Berlin: *Indogermanisches Jahrbuch*, bei W. de Gruyter & Co.
- 1928 Germany: Berlin: *Jahresbericht für germanische Philologie*.
- 1926 Germany: Braunschweig: *Archiv für das Studium der neueren Sprachen and Literaturen*, bei Georg Westermann.
- 1926 Germany: Frankfurt a. M.: *Rheinisches Museum für Philologie*, bei J. D. Sauerlanders Verlag.
- 1926 Germany: Frankfurt a. M.: *Monatschrift für Geschichte und Wissenschaft des Judentums*, bei J. Kauffmann Verlag.
- 1925 Germany: Giessen: *Philological Publications of the University of Giessen*.
- 1928 Germany: Halle a. S.: *Zeitschrift für Celtische Philologie*, bei Max Niemeyer.
- 1925 Germany: Halle a. S.: *Zeitschrift für Indologie und Iranistik*, and *Zeitschrift für Semitistik*, published by the Deutsche Morgenländische Gesellschaft, Wilhelmstr. 36-37.
- 1926 Germany: Hamburg: *Zeitschrift für Eingeborenen Sprachen*, bei Prof. Dr. Meinhof, Rothenbaumchaussee 12.
- 1929 Germany: Leipzig: *Englische Studien*, care of O. R. Reisland, Karlstr. 20.
- 1929 Germany: Leipzig: *Literatur-Blatt für germanisch-romanische Philologie*, bei O. R. Reisland, Karlstr. 20.
- 1925 Germany: Leipzig: *Orientalistische Literaturzeitung*, bei der J. C. Hinrichs'schen Buchhandlung, Blumengasse 2.
- 1926 Germany: Leipzig: *Philologus*, bei der Dieterichschen Buchhandlung, Rabensteinplatz 2.

- 1929 Germany: Leipzig: *Zeitschrift für Slawische Philologie*, care of Markert & Petters, Seeburgstr. 53.
- 1927 Germany: Weimar: *Kleinasiatische Forschungen*, bei Hermann Böhlhaus Nachfolger.
- 1928 Hungary: Budapest: Magyar Tudományos Akademia.
- 1928 India: Calcutta: *Journal of the Asiatic Society of Bengal*, 1 Park St.
- 1925 Italy: Firenze: *Bolletino delle Pubblicazioni Italiane*, presso la Biblioteca Nazionale Centrale.
- 1926 Italy: Milano: *Aegyptus*, Via S. Agnese, 4.
- 1929 Italy: Napoli: *Nuova Cultura*, Via Sanità 131.
- 1925 Italy: Roma: *Biblica*, Piazza della Pilotta 35.
- 1926 Italy: Roma: *La Cultura*, Fontanella di Borghese 20-22.
- 1925 Italy: Roma: *Ricerche Religiose*, Via Giulio Alberoni 37.
- 1927 Yugoslavia: Belgrade: *Yuzenoslovenski Filolog*, care of Prof. A. Belić, Univ. of Belgrade.
- 1927 Lebanon Republic: Beirout: *Mélanges de l'Université St. Joseph*.
- 1926 Netherlands: Nijmegen: *English Studies*, 282 Bergendaal-scheweg.
- 1925 New Zealand: Wellington: *Journal of the Polynesian Society*, Box 523.
- 1928 Norway: Oslo: *Bidrag til Nordisk Filologi*, care of the University.
- 1926 Norway: Oslo: *Norsk Tidsskrift for Sprogvidenskap*, Gimle Terrasse 3.
- 1925 Spain: Madrid: *Revista de Filología Española*, Calle de Almagro 26.
- 1925 Sweden: Lund: *Namn och Bygd* and *Linguistic Dissertations* of the University, care of the University Library.
- 1925 Sweden: Uppsala: *Le Monde Oriental*, care of the University Library.

BOOKS RECEIVED

Under this heading will be acknowledged such works as seem to bear on the advancement of the scientific study of language.

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Reviews will be published as circumstances permit. Copies of them will be sent to the publishers of the works reviewed.

For further bibliographic information consult the annual list of Exchanges.

American Speech 5. 1-179 (1929).

Anglosaxonica. By H. M. FLASDIECK. (*Anglia* 1929. 342-6).

Anthropos 24. 379-1170 (1929).

Archiv für das Studium der neueren Sprachen und Literaturen 156. 1-160 (1929).

Archiv Orientální 1. 263-384 (1929).

Arkiv för Nordisk Filologi 45. 1-304 (1929).

Das Ausland in Smollets Romanen. Pp. 35. By ERNA SCHUDT. Giessen: 1923.

Beiträge zur Erforschung der Sprache und Kultur Englands und Nordamerikas. Edited by WILHELM HORN. Giessen: Englisches Seminar der Universität, 1923-5; Breslau: Englisches Seminar der Universität, 1927-8.

The following linguistic treatises are contained in this series: J. A. Heil, *Die Volkssprache im Nordosten der Vereinigten Staaten von Amerika*. Vol. 3. 205-311. Leon Stahl, *Der adnominale Genitiv und sein Ersatz im Mittelenglischen und Frühneuenglischen*. Vol. 3. 1-32. E. Kaffenberger, *Englische Lautlehre nach Thomas Sheridans Dictionary of the English Language (1780)*. Vol. 3. 33-88. K. Beysel, *Die Namen der Blutverwandtschaft im Englischen*. Vol. 3. 89-152. Adam Heldmann, *Lautlehre der schottischen Mundart im südöstlichen Perthshire*. Vol. 3. 153-212. K. Reuning, *The Shepherd's Tale of the Powder Plot*. Vol. 4. 113-54. H. Kessler, *Die Verwendung der Mundart bei Bret Harte*. Vol. 5. 181-262. H. Kauter, *Englische Lautlehre nach Richard Hodges' The English Primrose*. Vol. 6. 1-62.

Bibliotheca Africana 3. 109-263 (1929).

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Ch. Dickens A Christmas Carol Un Chant de Noël; Texte Français par R. GAUILLARD avec le texte anglais en regard. Pp. 293. Paris: Payot, 1929. (Collection des Deux Textes).

Der 'Chorus' im Englischen Drama bis 1642. Pp. 52. By HEINRICH RAUSCH. Giessen: 1922.

La Cultura N. S. 1. 513-76 (1929).

Deutsches Wörterbuch mit besonderer Berücksichtigung der Mundarten und Fremdwörter. Pp. xx + 404. By KARL BERGMANN. Leipzig: Fr. Brandstetter, 1923.

Diccionari Catala-Valencia-Balear. 1. 497-624. Edited by ANTONI MA. ALCOVER. Barcelona: Llibreria Verdaguer, 1929.

The Doctrine of Correctness in English Usage 1700-1800. Pp. 361. By STERLING ANDRUS LEONARD. Madison: 1929. (Univ. of Wisconsin Studies in Lang. and Lit. No. 25).

Einige Bemerkungen zu mittelhochdeutschen Texten. By HUGO SUOLAHTI. (Neuphilologische Mitteilungen 30. 142-6 [1929]).

Englische Studien 1. 1-176 (1929).

English Studies 11. 161-240 (1929).

Entrelacement de propositions dans le hongrois. By GYULA ZOLNAI. (Rev. d. Ét. Hongr. 16. 337-47, 1929).

Etruscan Notes. Pp. 68. By ALF TORP. Christiania: 1905. (Videnskabs-Selskabets Skrifter).

Etruskisch und Armenisch. Pp. xviii + 171. By Sophus Bugge. Christiania: H. Aschehoug & Co., 1890.

Der Formenbau bei Beaumont und Fletcher. Pp. iv + 36. By HERMANN SCHMIDT. Giessen: 1925.

Der Formenbau des englischen Verbums im 17. und 18. Jahrhundert. Pp. 36. By KARL MÜLLER. Giessen: 1922.

Der französische Einfluss auf die deutsche Sprache im dreizehnten Jahrhundert. Pp. 310. By HUGO SUOLAHTI. Helsingfors: 1929. (Mémoires de la Société néo-philologique de Helsingfors).

Freiligraths Übersetzungen englischer Dichtungen. Pp. 30. By F. A. ROESCHEN. Giessen: 1923.

George Eliot: en Studie i hennes Religiösa och Filosofiska Utveckling. Pp. 244. By INGEBORG TEGNÉR. Lund: Gleerupska Universitets-Bokhandeln, 1929.

Gnomon 5. 529-688, Bibliogr. Beilage Nos. 5-6, 1929.

Zu den griechischen Ethnika. By HERMANN JACOBSON. (Zeitschr. f. vgl. Sprachforschung 57. 76-117, 1929).

Hebräische Grammatik; II Teil: Verbum 2 Hälfte. Pp. 87-182. By G. BERGSTRÄSSER. Leipzig: J. C. Hinrichs'sche Buchhandlung, 1929. (Gesenius' hebr. Gram. 29. Aufl.).

Herders Bekanntschaft mit der englischen Literatur. Pp. VIII + 83. By LUISE SCHORK. Breslau: 1928. (Beiheft d. Beitr. z. Erf. d. Spr. u. Kultur Englands u. Nordamerikas).

Hespéris; Archives Berbères et Bulletin de l'Institut des Hautes Études Marocaines 8. 1-133 (1928).

Hethiter und Griechen. By B. HROZNÝ. (Arch. Or. 1. 323-43, 1929).

Hispania 12. 339-650 (1929).

Histoire d'un mot et de ses pérégrinations: Biche-de-Mer. By FERNAND MOSSE. (Revue Anglo-Américaine, Oct. 1929).

Indogermanische Forschungen 47. 209-396 (1929).

Instrumental und Ablativ im Hethitischen. By B. HROZNÝ. (Don. Nat. Schrijnen 367-8, 1929).

L'invasion des Indo-Européens en Asie Mineure vers 2000 av. J.-C. By B. HROZNÝ. (Arch. Or. 1. 273-99, 1929).

Italica 6. 107-37 (1929).

John Drinkwater als Dramatiker. Pp. 58. By A. W. ROEDER. Giessen: 1927.

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Die lateinische Partikel VT. Pp. VI + 304. By BASTIAN DAHL. Kristiania: Grøndahl & Søn, 1882.

Aus dem Leben unserer Muttersprache. Pp. 193. By WILHELM OPPERMANN. Leipzig: Fr. Brandstetter, 1928.

Leuvensche Bijdragen 21. 1-31, Bijblad 1-58 (1929).

Le Maître Phonétique 1929. 27-54.

Man 29. 165-216 (1929).

The Modern Languages Forum. 14 No. 4.

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Die Mundart im Englischen Drama. Pp. 86. By ADOLF WEISS. Giessen: 1924.

Den Musikalske Aksent i Stavangermålet. Pp. 77. By ERNST W. SELMER. Oslo: Jacob Dybwad, 1927. (Avhandlingar utgitt av Det Norske Videnskaps-Akademi i Oslo II, Hist. Filos. Klasse 1927. No. 3).

Namn och Bygd 16. 81-185 (1928).

Zur Naturbehandlung in Thomas Hardys Romanen. Pp. 42. By MAX SALOMON. Giessen: 1925.

Nytrøndsk Ordforkortning og Betoning. Pp. 119. By JØRG REITAN. Kristiania. Jacob Dybwad, 1922. (Videnskapsselskapets Skrifter. II Hist.-Filos. Klasse. 1921 No. 9).

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La phonétique et ses applications. Pp. 24. By PAUL PASSY. London: Association Phonétique Internationale, 1929.

La Phonétique Latine. Pp. 69. B. A. C. JURET. Publications de la Faculté des Lettres de l'Université d'Strasbourg: 1929.

Zum Phrygischen. Pp. 19. By ALF TORP. (Videnskapsselskabets Skrifter. II, Hist.-Filos. Klasse). Kristiania: Jacob Dybwad, 1896.

Zu den phrygischen Inschriften aus römischer Zeit. Pp. 23. By ALF TORP. (Videnskapsselskabets Skrifter. II, Hist.-Filos. Klasse). Kristiania: Jacob Dybwad, 1894.

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Das Praesens historicum im Mittelenglischen. Pp. 38. By HANS ROLOFF. Giessen: no date.

Prehistoric Art of the Alaskan Eskimo. By H. B. COLLINS JR. (Smithsonian Misc. Coll. 81, no. 14, 1929).

Profaner und heiliger Gürtel im alten Iran. Mit Exkurs über die idg. Terminologie für 'Gürtel' und 'gürten'. By EDUARD SCHWYZER. (Wörter und Sachen 12. 20-37, 1929).

Propriety in the Light of Linguistics. By KLARA H. COLLITZ. (Mod. Phil. 26. 415-26, 1929).

Relative Frequency as a Determinant of Phonetic Change. By G. K. ZIPP. (Harv. Stud. in Class. Phil. 40. 1-95, 1929).

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CAN HITTITE *h* BE DERIVED FROM INDO-HITTITE ϑ ?

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[Criticism of Kurylowicz' development of the theory that IE ϑ was a consonant. His studies have led to a number of acceptable etymologies; but these can be explained on the earlier assumptions, while a number of others are inconsistent with the theory, which as a whole cannot be maintained. Hittite *h* is the continuant of an Indo-Hittite consonant that was lost in Indo-European.]

De Saussure's¹ doctrine that Indo-European Schwa (ϑ) was a consonant has recently been adopted and developed with striking results by Jerzy Kurylowicz.² By means of several ingenious assumptions and combinations he finds explanations for a surprising number of problems in Indo-European comparative grammar. The system is so largely artificial that it can scarcely win acceptance in its present form; but that it deserves serious attention is indicated by the very respectful notice which it has received from excellent scholars.³

Kurylowicz holds that in primitive Indo-European there were three consonantal sounds which, when standing after a short vowel and before a consonant, yielded the long vowels of the historic languages, thus: $e + \vartheta_1 = \bar{e}$, $e + \vartheta_2 = \bar{a}$; $e + \vartheta_3 = \bar{o}$. Hence IE *er*: $r = e\vartheta (>\bar{a}^x)$: ϑ . These same consonants frequently stood at the beginning of a word or in the interior of a word after a consonant; here they were lost without influence upon the quantity of the following vowel, but $*\vartheta_2$ changed a

¹ *Mémoire sur le Système Primitif des Voyelles dans les Langues Indo-Européennes* 135 = *Recueil des Publications Scientifiques* 127.

² 'Les Effets du ϑ en Indoiranien', *Prace Filologiczne* 11.201-43 (1927); 'Origine Indoeuropéenne du Redoublement Attique', *Eos* 30.206-10 (1927); ' ϑ Indoeuropéen et *h* Hittite', *Symbolae Grammaticae Offertae à J. Rozwadowski* 95-104 (1927); 'Quelque Problèmes Métriques du Rîgvêda' *Rocznik Orjentalistyczny* 4. 196-218 (1928); 'Le Type Védique *grbhāyāti*', *Étrennes de Linguistiques Offertae à M. Émile Benveniste* 51-62 (1928).

³ See Pedersen, *Litteris* 5. 156-9 (1928); Cuny, *Revue des Études Anciennes* 31. 290 (1929); Debrunner, *Indogermanisches Jahrbuch* 13. 66f. (1929); Pedersen notes that Cuny advanced a similar theory in the same *Symbolae Grammaticae*; but, since I have not seen this article, I must confine my remarks to Kurylowicz.

following *e* to *a* and ϑ_3 changed a following *e* to *o*. Furthermore a voiceless stop sound before ϑ_2 became an aspirate.⁴ If these ideas were pushed to their logical conclusion, we should greatly simplify the phonetic system of an early stage of Indo-European. At the cost of three additional consonants, we should get rid of the five voiceless aspirates and of all vowels except short *e* and a number of sounds which may function either as vowels or as consonants (ϑ_1 , ϑ_2 , ϑ_3 , *i*, *u*, *r*, *l*, *m*, *n*). I am not sure that Kurylowicz ever wanted to go as far as this; in any case he has come to the conclusion (*Symbolae Grammaticae* 102) that the qualitative ablaut is independent of the changes which his theory posits. This point is nowhere treated in the detail it deserves; it necessitates the assumption that the ablaut changes are older than the vowel changes induced by ϑ and that the quality of an *o* due to ablaut was not subsequently affected by a neighboring ϑ . For example, the two roots **pā* 'pasture' and **pō* 'protect' are ablaut variants of original **pe ϑ_2* ; and it follows that, while **pe ϑ_2* yielded **pā*, **po ϑ_2* yielded **pō*. Consequently the logical necessity for ϑ_3 vanishes; **dō* 'give' may perfectly well be traced to an earlier **do ϑ_1* or **do ϑ_2* —as Kurylowicz seems to realize, since the article just referred to mentions ϑ_3 only in a footnote.

Kurylowicz has so far treated only selected features of IE grammar which seem to support his theory. Before it can be accepted it must be submitted to a searching examination in the light of all the available evidence. The purpose of the present paper, however, is more modest; namely to examine certain evidence which is adduced from Hittite in one of the articles listed above.⁵

Kurylowicz holds that while ϑ_1 was lost in Hittite as in IE, ϑ_2 became Hittite *h*. It will be convenient to treat in order the evidence which he adduces (See *op. cit.* 101-4).

'Hittite *hantezzi* "le premier": lat. *ante*, arm. *andrank*, grec. *ἀντί*.' I have independently proposed⁶ to identify **hanta*, the prior element of *hantezziš*, with Gk. *ἄντα* 'face to face'; both words are stereotyped accusatives, while Gk. *ἀντί*, the corresponding locative, is cognate with Hittite *hanti* 'in front, forward, separately'.⁷ Kurylowicz holds that the Greek *a* and the Hittite *h* are both evidence for ϑ_2 ; if so it would be necessary

⁴ This is a development of a suggestion made by de Saussure, *Bulletin de la Société de Linguistique de Paris* 7. cxviii (1891), = *Recueil des Publications Scientifiques* 603.

⁵ *Symbolae Grammaticae* 97-104.

⁶ *LANGUAGE* 4. 163 (1928).

⁷ For the meaning, see Götze, *Kleinasiatische Forschungen* 1. 231f.; Forrer, *Forschungen* 1. 203f.

to ascribe the Hittite vowel to the same source, since Indo-Hittite⁸ *e* ordinarily appears in Hittite as *e* (often written *i*). Others will prefer to assume original *a* (IH ***hantē*).

'Hittite *henkan* "la mort": **ank*, v. Walde s.v. *neco*, Boisacq s.v. *ἀνάγκη*; breton. *ankou*, gallois *angeu* "la mort". An excellent etymology, whatever one may think of the theory as a whole; but it will be difficult for Kurylowicz to explain the *e* of the Hittite word. I should call it the full grade vowel, while the initial *a* of Greek *ἀνάγκη* must then represent the reduced grade.

'Hittite *hūiš(u)*⁹ "vivre". Racine indoeuropéenne **a-y-s* (*aus*, *yes*). Sanskrit *vāsati* "demeurer, passer la nuit", grec. *laíw* "passer la nuit", v.h.a. *wēsan* 'être', arm. *goy* "il existe". This etymology is preferable to the one which I advanced for the Hittite word several years ago;¹⁰ the chief objection to it is that *huitar* 'the animals' must be separated from this root and connected rather with *huwa-* 'flee, run' (cf. Gk. *πρόβατον*).

'Hittite *hark-* "luire" dans *harkiš* "blanc, luisant" (*Z.f. Assyriologie* 37.184): grec. *ἀργής* "brilliant", ind. *árjuna* etc.' This etymology also is better than mine (LANG. 3. 119).

Kurylowicz himself is not fully satisfied with his connection of *hamešhanza* 'spring' with Skt. *vasantas*, and it is impossible if, as I think, *hamešhanza* means 'summer' (see LANG. 4. 163).

'Hittite *išhiia* "lier" (*i*-prothétique): indoeuropéen **sāi* (*s-ǵ₂-i*), cf. Walde s.v. *saeta*. Kretschmer (*KlF* 1. 10) has independently proposed the same etymology; but I cannot see any way to choose between it and my connection of the IE root with Hitt. *šai* 'he puts on, seals' (LANG. 3.221, 4.160₇).

'Hittite *šuhh* (et *išhuwa* avec *i* prothétique) "jeter, lancer, verser, mettre en tas": indoeur. **s-ǵ₂* dans l'ind. *suwāti*, *sūtē* (*savitār-*) etc., *ǵ₂* étant garanti par l'avestique **hunāmi*.' I do not understand how Kurylowicz connects *išhu(w)a(i)-* with the root **s-ǵ₂*; it seems to demand rather **s-ǵ₂-ǵ₂*. In spite of their apparent identity of meaning¹¹ the two Hittite words must be etymologically distinct. I have suggested (LANG. 4.160) that *išhuwa-* is a denominative from the *u*-stem seen in Skt. *iṣuṣ* 'arrow'. If so we should expect it to belong to the *mi*-conjuga-

⁸ Since the term *Pre-Indo-European* is needed in another sense, I propose the name *Indo-Hittite* for the inferred common source of Indo-European and Hittite.

⁹ Why does Kurylowicz retain the mark of long quantity? His etymology requires the pronunciation *hweš*. For the orthography *hu-u-iš* = *hwiš* (or *hweš*), cf. *American Journal of Philology* 50. 363-5.

¹⁰ LANG. 3. 110-3 (1927).

¹¹ See Sommer and Ehelolf, *Boghazköi-Studien* 10. 53f.; Götze, *KlF* 1. 229.

tion;¹² but shifts from one conjugation to the other are common enough, as, for example, in *pettai* beside *pettaizzi* 'he flees' (Götze 84 and fn. 8). The connection of *šuhhai* 'he scatters, empties, mixes'¹³ with IE **sue*, **sū* 'beget, bear, impel' is probable; but many will doubt whether Av. *hunāmi* establishes *ā* as the original root-final (granted that the suffix *nā* comes from nasal infix and root-final *ā*, one must still reckon with the possibility of analogical creation).

'Hittite *pahš* "garder": lat. *pāscor* < *pā(s)* + *scor* (*pā* = **pe₂*), *pāstor*. Nous admettons que les racines **pā* "paître, nourrir" et **pō* "garder" n'en font au fond qu' une seule, l'alternance *ā/ō* étant par ailleurs régulière (*φημι*, *φωνή*) et les sens étant étroitement apparentés . . . ' Another brilliant etymology whatever one may think of the theory it is cited to support. It fits as well with the doctrine that original full-grade *ā* might alternate with *ō*.

'Hittite *wah-nu* (et *weh-*) "tourner, tordre": racine indoeur. *yā* (< *ye₂*) "courber" (cf. Walde s.v. *vārus*). Walde¹⁴ assigns to the root *yā* the meaning 'auseinander' and particularly 'auseinander biegen', which fits the Hittite words less well than the meaning which Kurylowicz gives. A more serious difficulty is presented by the fact that before the suffix *neu* the root should show the nil-grade,¹⁵ and according to the theory under discussion the nil-grade of ***yā* (or ***ye₂*) should be ***ya-* (Hittite **wanu-* instead of *wahnu-*), just as the nil-grade of **(s)lā* (or **(s)le₂*) is **(s)lā* (Skt. *sthītās*, Gk. *στατός*, Hitt. *tittanuzzi* 'he places'), or else ***u₂* (Hittite **uhnu-*). On the other hand, the vocalism of *weh-* and *wahnu-* makes no difficulty if we regard *h* as an IH consonant which was incapable of vocalization; *weh-* has full-grade and *wahnuzzi* 'vertit' (< IH ***yehnéuti*) has reduced grade of the root.

'Hittite *pahhur* "fire"—*pe₂-ur*, cf. le gotique *fōn* < *pāun* (*yer* et *yen* se trouvent en alternance dans le paradigme en question). Cf. le cypriote *παίω* "brûler" *παφειω* (Boisacq s.v. *παίω*). It is doubtful whether IE **pāun* would yield Gothic *fōn* (why not **faun*?); but the point is immaterial, since the more primitive Hittite form *pahhuwar* compels us to assume a longer IE form. According to Kurylowicz's theory IE **pāyōn* (< ***pe₂yōn*) would correspond with Hittite *pahhu-*

¹² See Götze, *Madduwattāš* 81-100; Sturtevant, *LANG*, 5. 8-14.

¹³ For the meaning, see Sturtevant, *Transactions of the American Philological Association* 58. 10f., line 8; and especially Götze, *KlF* 1. 228s.

¹⁴ See now Walde-Pokorny, *Vergleichendes Wörterbuch der Indogermanischen Sprachen* 1. 212.

¹⁵ See Brugmann, *Grundriss der Vergleichenden Grammatik der Indogermanischen Sprachen* 2. 3. 325.

war' and that would yield Goth. *fōn*. But so would **pūōn*, an analogical substitute for IE **pūōr*. Since Cyprian *παφίω* is utterly uncertain in meaning as well as in etymology,¹⁶ there is no evidence for *a* or *ā* in this word.

'A la fin des racines verbales *h* se présente souvent après une nasale ou liquide. . . . Cf. hittite *šanḫ* "petere, quaerere". . . , indien *sani-* "acquiescere", crétois *ἀναμαί*.' I do not see how this etymology can be squared with the theory under discussion. (1) There appears to be no explanation of the first *a* of the Greek word and of the *a* of Hittite; since both show nil-grade in the second syllable, we need full grade in the first, which, according to Kurylowicz, demands Gk. *ε* and Hittite *e*. (2) As noted above *z* should be vocalized between consonants, yielding Hittite *a*; but we find third singular *šanḫzi* (*šá-an-ah-zi* and *šá-an-ha-zi*), instead of **šanazi*. The etymology itself is attractive; it requires an IH base *sanhā*,¹⁷ whence **sánhə*, the root seen in Gk. *ἀναμαί*, Skt. *sanit-*, etc. The final *ə* must combine with a following *y* to form *um*,¹⁸ whence Gk. *ἀνυμες*, *ἡνυμεν* and Skt. *sanumas*; analogical creation then filled out the paradigm which yielded Gk. *ἀνίω* and Skt. *sanoti*. I should separate Gk. *ἐναπα* 'spoils' and the other words with initial *ε* which Walde-Pokorny (VWIS 2.493 f.) include under their root *sen* 'prepare'.

'Hittite *tarḫ* "vainere, dompter, abattre", indien *táratī*, *tirátī* (*avanis*, *ā*), lat. *in-trā-re*.' I still prefer to connect *tarḫ* with IE **ter-* 'tremble' (cf. LANG. 4.161).

'*h* étant un suffixe très vivant, il sert former verbes denominaux, p.e. hittite *idaluš* "mauvais", *idalawwahmi* "j'agis mal"; hittite *daššuš* "violent, puissant", *dašuwahhi* "il viole, endommage". Cf. le suffixe verbale indoeuropéen *-ā-* (lat. grec. *-ā-* [+ *-iō*], celtique *-ā-*, germ. *-ō-*, slave *-ā-* [+ *iō*], lit. *-ō-* [+ *iō*]).' Since this Hittite suffix shows no trace of IH *iō/e* or of any vowel between *ah* and the personal endings, and since the verbs thus formed belong for the most part to the *hi*-conjugation, which is cognate with the IE perfect, it is clear that *ah* is not to be compared with the present suffix *āiō/e*, but, at most, with the simpler suffix *ā*, which appears outside the present system in the IE languages (Gk. *τιμήσω* Lat. *plantārem*, Lith. *dovanoti*, etc.). I have shown (LANG. 5.8-14) that the Hittite suffix *a(i)* is cognate with the IE present suffix

¹⁶ See Walde-Pokorny VWIS 2. 12, 15.

¹⁷ Possibly *h* is a root-determinative that the IE forms never had; cf. my remarks on *weh* in LANG 4. 161.

¹⁸ See AJP 50.360-9. This process accounts for some at least of the doublets in **nā* and **neu* (Brugmann, Grund.² 2. 3. 325).

āiō, and it seems to follow that the corresponding IE *ā* of the non-present stems is to be recognized in infinitives like *irhawwar* 'completion': *irhaizzi* 'he completes'. The suffix *ah* can be brought into the picture only on the assumption of contamination; but that is not improbable (cf. especially *newahh-* 'renew': Lat. *novāre*). On the denominative suffix *a(i)*, see below p. 156.

'Les désinences verbales du présent singulier apparaissent en hittite sous une double forme:

- a) *-mi, -ši, -zi* (= **-mi, *-si, *-ti*);
- b) *-hi, -ti, -i*.

'En retranchant dans la seconde série les *i* propres au présent, nous obtenons: *-h, *-th, -zéro*. Le droit de restituer un *th* se fonde 1° sur la circonstance qu'en indoeuropéen il y a bien des désinences de 2-ème personne singular à *th-*. . . , mais qu'il n'y en a pas une à *t-*. 2° sur la circonstance qu'un *t* primitif serait passé à *z* devant un *i* suivant. . .

'Si, dans le singulier du parfait indoeuropéen comportant les désinences *-a, -tha, -e*, on retranche les *-e* finaux, tout en redonnant aux *a* leur valeur propre, c'est-à-dire *ǵ₂e*, on obtient *-ǵ₂, -th* (c'est-à-dire **tǵ₂*. . .), *-zéro*. La seconde série de désinences hittites est donc au fond la même que celle du parfait indoeuropéen; il y a là un parallélisme qu'on ne saurait méconnaître. Seulement en hittite il y eut élargissement par l'*-i* du présent, tandis que le parfait indoeuropéen adopte un *-e*. On sait que le parfait indoeuropéen est au fond un présent à désinences particulières. . . .

'Du même coup, deux questions difficiles de phonétique indienne reçoivent une lumière inattendue: 1° la raison d'être de l'aspirée *-th-*. 2° l'opposition entre la 1-ère pers. (*cakara*) et la 3-ème pers. (*cakāra*): c'est l'opposition entre la syllabe fermée (**q_uq_uorǵ-e*) et la syllabe ouverte (**q_uq_uor-e*).'

I agree with Kurylowicz in identifying the endings of the Hittite *hi*-conjugation with those of the IE perfect,¹⁹ but I can find no justification for his amputation of the final vowels of Hittite and IE before he makes the comparison. It is much more likely that the Hittite third personal ending *i* is cognate with the IE *e*, and that Hittite *ahi* (e.g. *šaggahhi* 'I know': *šakki* 'he knows') is cognate with IE *ai* (Skt. *tutude*, Lat. *vidi*, Ch. Sl. *vědě*).

Kurylowicz makes a curious slip in his treatment of the Hittite second

¹⁹ See LANG. 2. 33f. (1926), 3. 161-8, 4. 165.

person. He is right in identifying the consonant of Hittite *ti* with that of Skt. *tha* and Gk. *θα*. The IH ending was *tha*, and this must have yielded Hittite *ta*; then the analogy of the first person (possibly strengthened by the corresponding *ši* of the *mi*-conjugation) changed *ta* to *ti*. But it is impossible to ascribe the aspiration to the former presence of \mathfrak{z}_2 ($th < t\mathfrak{z}_2$), if we hold that \mathfrak{z}_2 survives in Hittite. Although he does not suggest anything of the sort, it may be that Kurylowicz assumes loss of such an *h* after *t*; but if so he must explain the presence of *h* after *t* in *tethai*, *tethiškiizzi* 'it thunders', and *tetheššar*, *tethimaš* 'thunder',²⁰ and in ^{GIS}*nathila* (*Keilschrift Urkunden aus Boghazkoi* 10.92.6.15). The same combination appears in proper names, e.g. *Tuthaliyas*, the name of several Hittite kings.

After all our criticism there remains an impressive body of material which fits Kurylowicz's theory, and it would be easy to make considerable additions to it; but all such material is equally well accounted for by the alternative theory, according to which IH had a consonantal *h* that could not be vocalized, a vowel *a*, and long vowels \bar{e} , \bar{o} , and \bar{a} , whose nil-grade was \mathfrak{z} . Consequently a moderate number of highly probable etymologies which are inconsistent with the assumption that \mathfrak{z}_2 = Hittite *h* or with its corollaries are enough to disprove it.

We have already noted that the connection of Hittite *šanh-* 'petere' with Gk. ἀνῶ, ἀναμαι 'accomplish' involves the assumption of *a* both in Hittite and in IE although the absence of *h* before the vowel in Hittite should, according to the theory, indicate that there was no \mathfrak{z}_2 to account for a change of *e* to *a*. It cannot be urged that the \mathfrak{z}_2 of the following syllable led to a dissimilative loss; for Hittite contains many such words as *arhahari*, *ešhahru*, *harharaš*, *huhhaš*, *lahlahiman*, *tuhuhša*.

Other certain etymologies which involve IH *a*, although Hittite shows no *h* are; *appa(n)* 'afterwards, then, behind, back' = Gk. ἀπό Lat. *ab*, etc.; *aruwa(i)-* 'worship' = Gk. ἀράομαι;²¹ *waki* 'he removes': Lith. *vagiū* 'steal', *waggari* 'is lacking': Lat. *vagor* 'wander';²² *karp-* 'get, take (up or away), muster (troops)';²³ Lat. *carpo* 'pluck, seize', Gk. καρπός

²⁰ See Friedrich, *Zeitschrift für Assyriologie* NF 3. 196 f.; Götze, *KlF* 1. 186.

²¹ See LANG. 5. 10.

²² See LANG. 5. 228. Since the above was written Friedrich, *Staatsverträge* 2. 171, has shown that *waggari* is a *hi*-conjugation verb with stem *waggar-*. It probably has no connection either with Hitt. *waki* or with Lat. *vagor*.

²³ See Friedrich, *ZA* NF 1. 185f.; Sommer and Ehelolf, *Boghazkoi-Studien* 10. 73f.; Götze, *Hattušiliš* 98ff., *Madd.* 45; Forrer, *Forschungen* 1. 64. These scholars (with the exception of Forrer, who does not discuss the question) regard 'take up' as the primary meaning of the word; but the numerous passages cited by them indi-

'harvest'; *wa-al-lu-uš-ki-ši* (i.e. *walškiši*?) 'you are strong',²⁴ *wal-kiššaraš* 'strong-handed'.²⁵ Lat. *valeo*, Goth. *waldan*, OHG *walten* 'be strong'. With a little more hesitation I would connect *ališ* 'white',²⁶ with Gk. ἀλφός, Lat. *albus* 'white', and Lith. *alvas* 'tin', etc.²⁷

As noted above the IE denominative suffix *ālo/e* appears in Hittite as *a(i)* (e.g. *tarmaizzi* = Lat. *terminat*, *tairmanzi* = *terminant*). Here, then, we must recognize an IE long *ā* in a suffix which in Hittite has no *h*. If it be urged that the length and character of the vowel in IE are both due to contamination with the denominative suffix which appears in Hittite as *ah* (see above, p. 153-4), it will still be necessary to account for the Hittite *a(i)*-verbs; for IH *e* remains in Hittite.

It is equally necessary to assume IH *ā* for Hitt. *tayezzi* 'he steals':²⁸ Skt. (s)*tāyus* 'thief', Av. *tāyu-* 'thief', *tāya-* 'theft', Ch. Sl. *tajq* 'hide', Gk. τητάω (Pind. τᾱτῶμενος) 'deprive of'.

Kurylowicz (95₂) cites Gk. ἵσταμι as a typical example of *ā* from *e*₂. The root appears in at least three Hittite verbs, none of which contain *h*. For *ištanta-* 'tarry': Goth. *standan* 'stand' and *ištap-* 'enclose, keep': Skt. *sthāpayati* 'causes to stand', see LANG. 4.3f. Of particular interest is Hitt. *tittanu-* 'cause to stand, place',²⁹ which furnishes us the explanation of the curious reduplication of Skt. *tiṣṭhāmi*. The Hittite causative lacks the predeterminative *s* which appears in the two Hittite words just cited and regularly in IE (cf. Gk. τέγος = στέγος, Skt. *tāyus* = *stāyus*, etc.). The Skt. *tiṣṭhāmi*, then, is a contamination of **titāmi* and **sisthāmi*, while Av. *histaiti*, Gk. ἵστημι, and Lat. *sisto* represent the normal reduplication of the root **stā*. The *a* of *tittanu-*, like that of *ištanta-*, represents IH *a* (note the variant *titnu-*); the only one of the three Hittite words that contains original *ā* is *ištap-*.

Other certain etymologies which involve IH *ā* without a trace of a

cate rather a primary meaning 'get'. Delaporte, *Grammaire de la Langue Hittite* 101, suggests the meaning 'play' (a musical instrument) for the occurrence in *Keilschrifttexte aus Boghazköi* 4. 9. 5. 30, 36, a meaning which would strengthen the above etymology, in view of OE *hearpe*, OIsl. *harpa*, etc., 'a pluck-instrument, a harp'. But Götze's (*Hatt.* 99) interpretation of the passage may after all be correct.

²⁴ Forrer, *Forschungen* 2. 30.

²⁵ Cf. Hrozný, *Sprache der Hethiter* 40; Holma, *Journal de la Société Finno-Ougrienne* 33. 31f.

²⁶ See Götze, *Madd.* 142.

²⁷ See Walde-Pokorny, *VWIS* 1. 92 ff., and references.

²⁸ Cf. LANG. 5. 145.

²⁹ See Hrozný, *SH* 76₃; Sommer and Ehelolf, *BoSt.* 10. 51; Götze, *Madd.* 136.

contiguous *h* in Hittite are these: Hitt. *hapatiš* has IH long *ā* in its second syllable, as appears from Gk. ὁπηδός and ὁπάων (see LANG. 4. 164). Hitt. *man* 'äv' and *man* 'if' must be the same word as Gk. μᾶν. Hitt. *mamahhi* 'I say', *memai* 'he says' is identical with Gk. μέμνημαι except that it is active (the etymologies which I suggested in LANG. 3.217 are to be rejected). It is one of the few *hi*-conjugation verbs to preserve the reduplication. The development of *mn* to Hittite *m* is seen also in *tarmai* = Lat. *terminat* (see above p. 156), *ištamaš*- 'hear': *ištamanaš* 'ear', *arummaš* 'of washing' (<**arumnaš*): *arrummar* 'to wash', and in many other words.³⁰

Hitt. *papra*- 'do wrong, sin', *papratar* 'uncleanness, sin', *papreš*- 'be guilty'³¹ are to be connected with Lat. *prāvus* 'bad'; but it might possibly be maintained that the vocalism is due to the form with suffixal *h* (in that case from *ḡ₂*) which appears in *paprahhiškir* 'they made impure' (KUB 7.53.2.16). Hitt. *wašta*- 'do injury, sin', *waštul* 'sin, injury' may plausibly be connected with *vāstus*, OE *wēste* 'desert', which Walde-Pokorny, VWIS, 1.219, compare with the root *yā*- 'strike, wound'.

Kurylowicz (97) makes much of that part of his argument by which he accounts for the initial vowels of Lat. *aurora* beside Skt. *a-vasran* 'they shone', Lat. *augeo* beside Skt. *vavākṣa* 'he increased', and Gk. αὐδή 'speech' beside Skt. *vadati* 'he speaks'. While other scholars, following Hirt, assume for these pairs the ablaut bases ***ayēs*-, ***ayeg*-, ***ayed*-, Kurylowicz accounts for the Latin or Greek *a* by assuming triconsonantal roots, *ḡ₂-y-s*, *ḡ₂-y-g*, and *ḡ₂-y-d*, so that **aus* is from **ḡ₂eyš*, **aug* from **ḡ₂eyg*, and **aud* from **ḡ₂eyd*.

It happens that two of these three roots occur in Hittite, and neither of them has an initial *h*. I have recently treated the connection of Hittite *au(š)*- 'see' with Lat. *aurōra*, etc. (LANG. 6.34-5), and I will not repeat. Hitt. *uttar*, gen. *uttanaš* 'word', certainly belongs to the root ***yed* 'speak',³² probably it contains the nil-grade seen in Gk. ὑδέω, ὑδω 'celebrate', Skt. *uditas* 'spoken' etc., rather than the first full grade which Kurylowicz finds in Gk. αὐδή. The derivative verb *watarnah*- 'command'³³ is certainly to be connected with *uttar*; it seems to imply a noun **watar* with either *o*-grade or reduced grade of the root (***yótr* or ***y_etór*).

There can be no doubt, then, that the Hittite part of the theory proposed by Kurylowicz is impossible. If it is true that the long vowels

³⁰ See Ehelolf, ZA NF 2. 313; Götze, Madd. 131.

³¹ See Götze, Hatt. 95f.

³² See Walde-Pokorny, VWIS 1. 251f.

³³ See Götze, Hatt. 96.

represent earlier diphthongs, e_{21} , e_{22} , and e_{23} , and if ϑ_2 is responsible for the vowels a and \bar{a} and for the voiceless aspirates, th , etc., all of the changes involved must have occurred in IH; for Hittite presupposes the same situation that appears in the IE languages. Hittite h cannot be equated with this ϑ_2 ; it represents an IH consonant which was incapable of vocalization, and which has vanished without leaving a trace in the IE languages. While Kurylowicz provides several additional etymologies for Hittite words containing h , I do not see that his article necessitates any essential modification of the conclusions regarding Hittite h which I reached in LANG. 4.159-170.

SOME HITTITE ETYMOLOGIES

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[The Indo-European affinities of the Hittite language being now generally accepted as proved by the inflectional forms and most of the usual criteria, the primary desideratum of linguistic scholars is the further association of Indo-European etymologies with the known Hittite vocabulary, which has so far proceeded more slowly. The subjoined etymologies are offered in the hope of adding something to our identification of the elements in the Hittite word-list.]

1. Hittite *duddu-* 'rage, be furious' (?),¹ *duddumiya(h)-* 'make furious, cause to rage',² *duddumili* 'blindly, furiously' (from an adjective **dud-dumis*)³ show a form (with intensive reduplication, for which cf. Grk. *παμφαίνω* < **φαν-φαν-ιω* 'flash, am very evident') of the IE **dhū-*, which appears in several IE languages with very closely related meanings. Thus Hom. Grk. *θύω* 'rush impetuously, bound furiously', *θύνω* (from **θυ-νφ-ω*),⁴ *θύελλα* 'storm, tempest' (from **θυελος* with suffix *-λα*, as in *ἔλλα* from **αγelo-*), Skt. *dhūnóti* 'shakes', passive *dhūyate* 'is agitated', *dhūnas* 'shaken, agitated', Mid. Ir. *dūil* 'desire, etc.', originally 'agitation of spirit'. In Ved. *dódhati* 'be angry, impetuous, fierce', *dudhis* 'violent, impetuous', *dúdhitas* 'troubled, perplexed', Armen. *dedewim* 'hesitate, waver',⁵ appear reduplicated forms of the root, which may be compared more closely with the Hittite forms.

The form *duddumiya(h)-* represents **dhu-dhu-ijo-* (cf. *παμφαίνω* above), and *duddumili* is for **dhu-dhu-ili* (from adj. **dhu-dhu-i-s*), with the common substitution of the *m*-character (and often the *m*-sound) after *u* for the *w*-glide.⁶ In the former word the glide-sound of course appears later than the vocalization of the semi-vowel in the suffix (**dhu-dhu-ijo-* > **dhu-dhu-ijo-* > **dhu-dhu-ijo-*). These forms confirm Sturtevant's

¹ Cf. Weidner, *Stud.* 124; Forrer, *Forsch.* 1. 46.

² Friedrich, *ZA NF* 1. 162, 172f.

³ Sommer, *BoSt.* 7. 15; Friedrich, *AO* 24, 3. 8.5.

⁴ Boisacq, *Dict. Etym.* s.v.

⁵ Hübschmann, *Armen. Gram.* 1. 438.

⁶ Delaporte, *Éléments de la Grammaire Hittite*; Sturtevant, *AJP* 50. 360 (1929).

thesis of a pre-Indo-European change of *y* to *m* after *u* or *a*, which he supports with numerous examples of infinitive and supine forms and first plural verbs. In the present instances the change has doubtless taken place within Hittite, as the glide is a secondary development, such as appears in various case-forms of *u*-stem nouns and adjectives (*genuwa*, *aššuwaz*). Indeed the forms may be purely orthographic,⁷ owing to confusion of *m*-endings with *w*-endings, so that *duddumili* may have been pronounced either as *dudduwili* or as *duddwili*, according as the *mi* was regarded as equivalent to *wi*, or *um* as equivalent to *w*.

For the form of the secondary verb cf. Hittite *lahlahiya*- 'be anxious, fight (?)', *taštašiya*- 'whisper'. Reduplicated forms are not uncommon in Hittite, about a dozen verbal and as many non-verbal examples being found in the vocabulary.⁸ Comparatively few of these, however, have as yet yielded certain etymological relations.

2. Hittite *akuwakuwaš* 'frog, toad',⁹ which is obviously reduplicated, may be connected with IE **ēqʷ-*, **əqʷ-*, 'water, drink' (of which ON *æger* 'sea' shows the full, Lat. *aqua* 'water' the reduced grade). The Hittite word (representing **əqʷ-əqʷ-os*) would then mean either 'the water-animal *par excellence*' or 'the (assiduous) drinker'. With the latter meaning we may compare Hittite *akuttaraš*, *ekuttaraš* 'drinker'¹⁰ from the same root, with an agent-suffix found also in *weštaraš* 'shepherd', beside *wešiš* 'pasture'. The verb *ek-*, *ak-* 'drink' shows the same treatment of the labio-velar (e.g. 3 sg. pres. *ekuzzi*, 3 pl. pres. *akuwanzi*).¹¹

In place of this definite etymology for *akuwakuwaš*, however, it may seem preferable to some to recognize in the word an onomatopoeic formation with reduplication (**a-kwa-kwa-s*), to be compared or identified with the *κοάξ* of the Aristophanic frog-cry. It would be difficult to prove borrowing from some language of Asia Minor in the case of the Greek word; furthermore the initial vowel of the Hittite word would require some explanation, as *akuwa-* can scarcely be a mere orthographic representation of *kwa-*, which in numerous Hittite words appears as *kuwa-*.¹²

⁷ Sturtevant 362-3.

⁸ E.g. *kalkalenu-* 'wet, pour over'; *wewak-* 'ask'; *wantewantemaš* 'lightning'; *halhaltumariš* 'corner(stone)'; *kunkunuzzi* 'diorite'; *purpuraš* 'lump, mass'; *tetanaš* 'hair', etc.

⁹ Forrer ap. Kretschmer, *KF.* 1. 310.

¹⁰ Sommer, *BoSt.* 7. 60 ff.

¹¹ Cf. Sturtevant 364.

¹² E. g. *kuwapi* 'somewhere', *kuwapit* 'where', *kuwat* 'why', *kuwapitta* 'everywhere', *kuwašk-* 'strike'.

3. Hittite *išhaš* 'master',¹³ *išhatar* 'lordship' may be derived from IH **eshos*, and compared directly with Lat. *erus* 'master, lord', fem. *era*, OLat. *esa*, a word used of both gods and men. Cognates of the Latin word are otherwise difficult to determine;¹⁴ it has been associated variously with Av. *aṇhuš* 'lord',¹⁵ with Skt. *asuras*, Av. *ahurō*, etc. 'divine being, demon',¹⁶ with Grk. *ἑὺς* (from **es-us*),¹⁷ and with a reduplicated pronoun stem *e-* (acc. **em-em*, whence nom. **es-es*, later **es-os*).¹⁸ The Hittite word seems to be easily equated with *erus*, if we assume that the medial *h* represents an original sound lost in Indo-European, but retained from an earlier stage in some Hittite words.¹⁹ Kretschmer²⁰ sets down medial *-šh-* in some Hittite words of IE origin as obviously equal to intervocalic *s*, sometimes represented by simple *š*, but the frequency of the sign in Hittite after other sounds than *š*,²¹ as well as in the initial position, makes it unlikely that it should be merely orthographical in some cases and etymological in others, especially as the Semitic cuneiform sign for the sibilant was almost certainly recognized by the Hittites as having a *sh* value.

4. Hittite *šumanza* 'cord, string',²² *šuel* 'cord'²³ are probably to be related to IE **sṷ-*, *sṷ-*, for which Walde-Pokorny²⁴ allow also **sū-* 'sew, attach'. Boisacq²⁵ refers the roots to an IE base **sṷeyā-*. It seems evident that *šumanza* represents *šumant-š*, in which we have an *n*-stem converted into an *nt*-stem, as Sturtevant postulated for *humanza* 'all, the whole',²⁶ (with which cf. Skt. *bhūman* 'earth'), without being in a position at the time to cite other examples. The connection of *šumanza* with Skt. *syūman* 'band' and Grk. *ὤμην* 'membrane' (the latter with short *υ*) now becomes more clearly established, but the length of the vowel is not indicated in the Hittite word. Forms like Skt. *syū* f.

¹³ Zimmermann, *OLZ*, 25. 297. Dat.sg. *eš-he* (*KBo.* 3. 34. 1. 25) probably shows that the initial vowel is not original *i*.

¹⁴ For connections, see Walde, *LEW*² s.v.

¹⁵ J. Schmidt, *Pluralbild.* 78.

¹⁶ Bartholomae, *AIWb.* 281 ff; v. Bradke, *ZDMG* 40. 347.

¹⁷ Walde-Pokorny, *VWIS* sub **es-* 'be'.

¹⁸ Brugmann, *Ber. d. Sächs. Ges.* 60. 67.

¹⁹ Sturtevant, *LANGUAGE* 3. 121-2 (1927), *LANG.* 4. 160 ff. (1928).

²⁰ *ZF* 1. 9 ff.

²¹ E.g. *irhaš* 'boundary', *lahhaš* 'battle', *walh-* 'strike', etc.

²² Weidner, *Stud.* 130 (*Leipziger Semitistische Studien* 7. 1-2).

²³ Friedrich, *ZA NF* 3. 185, 202; Götze, *KF* 1. 223.

²⁴ Walde-Pokorny, *VWIS* 514.

²⁵ Boisacq, *Dict. Etym.* s.v. *ὤμην*.

²⁶ *LANGUAGE* 3. 114 (1927), cf. also Sturtevant, *AJP* 50. 363 (1929).

'string, thread', *syūtas* 'sewn', Goth. *siujan* 'sew', Lith. *siūti* 'sew', OHG. *siula* (**siū-dhlā*) 'awl' certainly (and Grk. *ὑμῆν* probably) indicate the root **sīū-*, **sīu-*; while Skt. *sīvyati* 'sews' appears to require **sīy-*. But the Latin forms (*suo*, *sūtor*, *sūbula*) offer at least as good evidence for **sū-* as for **sīū-*, while Skt. *sūtram* 'thread', OHG *soum* 'sewn edge, border', have to be explained as re-formed or analogical forms²⁷ unless the root **sū-* be admitted.

If, however, we accept the loss of *i* as a phonetic change in Latin and an analogical change in Sanskrit (under the influence of *sīvyati*) or Germanic (through the feeling for *siujan*, e.g., as for **seu-jan*), we must then admit the loss of *i* in Hittite in certain cases at least after initial *š*. But this seems to conflict with *šīyanzi* 'put on; seal', if this is cognate with Skt. *syati* 'binds'; and there is a similar variation after medial *š*, apparently, as in *weššiya* (2 sg. impv.) and *waššanzi* (3 pl. indic.) from **yes-*, **uos-*. In Hittite after a consonant the consonantal *i* is represented most frequently by the characters *-iya-*, which, by a sort of samprasaraṇa, sometimes appear as *-i-*; the spelling *-ie-* is also found. The circumstances of this variation are not clearly indicated.

5. Hittite *šenah(h)aš* 'battle-line, army in the field (?)'²⁸ appears once in what is apparently the nominative form,²⁹ and in three places without the final *š*,³⁰ where Tenner explains the form either as a locative in *-a* (comparing *lahha* 'in battle', a word of related meaning and similar formation) or a neuter accusative singular which has lost the termination *-m*. Forrer calls such forms locatives, but Sturtevant has demonstrated³¹ that in part they represent accusative forms in *-an*, in part dative-locatives in a diphthong, which through sentence phonetics evolved doublets in *-i* and *-a*.

The termination *-haš* is found in eight or ten Hittite nouns and awaits elucidation; but *šenah(h)a-* in meaning and ablaut-form appears to agree with certain Indo-Iranian words from IE **sēi-*, *səḱ-*, *sī-*, *si-* or **sē(i)-*, *sə*.³² 'dispatch, throw'. Such are Skt. *sēnā* 'army, battle-array; dart, missile', *sāinyam* 'body of troops', *sāyaka-* n. 'missile, arrow', m. 'sword', *sāinika-* 'in martial array'. Outside of Indo-Iranian derivatives of this set of roots are rare and of doubtful authenticity.

²⁷ Walde-Pokorny, loc. cit.

²⁸ Tenner, *Hehitischer Annalertext des Königs Muršiliš II* 19.

²⁹ KBo 4.4.3.70. MI.KAM-az-ma-at-kan še-e-na-ah-aš QA.TAM.MA e-eš-zi.

³⁰ Tenner 1. 9-10, 16, 20.

³¹ LANGUAGE 5. 139 ff. (1929).

³² Walde-Pokorny VWIS 459 (2 **sēḱ-*).

Hittite *šenah(h)a-* may represent the ablaut grade **sē-* or **səi-* (for the development compare *tehhi* 'I place': IE **dhē-*, and *idaluš* 'bad': Grk. *αἶθας* 'smoky flame'), or possibly the grade **sēi-*, though the long diphthong seems to appear variously in Hittite (e.g. *šuppai* dat.-loc. of *i*-stem, probably in *-ei*; *naista* 3rd sg. pret. of *nehhi* 'I turn (my eyes), etc.', with which cf. Skt. *anaīṣit* from *ni-* 'lead'; but *nehhi* 1st sg. pres. act. and *neyari* 3rd sg. pres. mid. from the same root).

6. Hittite *tepuš* 'small'³³ *tepnu-* 'make small, revile',³⁴ *tepawaš-* 'make light of (?)',³⁵ *tepaweš-* 'be, become small'³⁶ may be assigned to the root **debh-* 'fine, small; crush, rub', which appears in Ved. *dabhras* 'little, small; deficient', *dabhram* adv. 'little, weakly', *dabhrá-cetas*, *dabhrá-buddhi* 'little-minded', *dábhati* 'hurts, deceives,' destroys, frustrates', *dabhas* 'deceit'. Cognates in other languages are Grk. *δέφω* 'trample, knead, make soft', ON *tifa*, MHG *zipfen* 'trample, stamp', Early Mod. Dutch *dabben* 'pinch, knead'.

Initially a voiced dental appears in Hittite as *d* or *t*, apparently without distinction (cf. *dalugaeš* nom. pl.: Grk. *δολιχός*; *tekkuššami* 'I show': Grk. *δείκνυμι*). The words of this group afford examples of the Hittite treatment of medial *-bh-* which may now be placed beside *nepiš* (**nebh-*), cognate with Skt. *nabhas*, Grk. *νέφος*.³⁷

³³ Hrozný, *SH* 7; Götze, *Hattušiliš* 131.

³⁴ Hrozný, *BoSt.* 3. 170; Friedrich, *ZA* NF 1. 16.

³⁵ *AJSLL* 44. 228.

³⁶ Götze, *Hattušiliš* 69.

³⁷ Sturtevant, *LANGUAGE* 3. 121 (1927); *LANGUAGE* 4. 151 (1928).

THE INFLECTION OF INDO-EUROPEAN PERSONAL PRONOUNS

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[Attempts to reconstruct complete paradigms for IE personal pronouns fail, not because the forms have shifted in manifold ways during the development of the separate languages, but because such paradigms were not then in existence. The parent language had for these pronouns only a number of stems used either by themselves or in combination with various particles, and with little, if any, differentiation of case usage. The development of paradigms, parallel to those of nouns and other pronouns, comes only at a later time.]

It is a well-known fact that it is impossible to reconstruct a complete paradigm of Indo-European personal pronouns.¹ There are indeed a number of forms which can be referred with certainty to the parent language, but these constitute a small minority of those expected by analogy to the declension of pronouns with variable gender and of nouns. Whenever an explanation is attempted, the assumption at the basis is that there were in existence in the pro-ethnic period paradigms as complete and as complex as those of the demonstratives, but that alongside of these existed some forms like **nōs*, **nos* (acc., gen., dat.) with wider meaning. Our inability to reconstruct such declensions is attributed to the strong associations between the various pronouns, as 'I' and 'we', 'I' and 'thou', 'we' and 'you', which offered a particularly good foothold to the disrupting influence of analogy, so that the individual languages developed in such widely different directions that the original relations of the forms can no longer be traced.

Against this seemingly reasonable explanation two objections present themselves. The first one is this, that while the very strong associations between the various personal pronouns actually exist, and many innovations can be traced to them with certainty,² yet on the other hand it must not be forgotten that the strength of these associations is more or less overbalanced by a conserving force that is stronger in

¹ Cf. e.g. the presentation in Brugmann, *Grundr.* 2. 2. 378 ff.

² Cf. Brugmann, *op. cit.* 386 ff.

pronouns than anywhere else, namely the force of habit. It is a common-place of language study that the forms which are used most frequently are generally the most irregular.³ The cause of this of course is not usually the tendency to articulate carelessly forms which are used so much that they require no attention, but rather the strength of habit in the pronunciation of words in common use. We reproduce by memory forms which stand altogether by themselves and no longer fit into the present grammatical scheme. Thus the irregularity of common words is usually due to their being more conservative and changing more slowly than the rarer words, which are fitted into the system because we are apt to use them according to other patterns instead of reproducing each one by memory. Now unless it is the verb 'to be', no words are used more frequently than the personal pronouns, so that it would be strange if the tendency to analogical formations favored by the close association of the various pronouns were not counterbalanced by a special tenaciousness of their forms because of their reproduction through memory by firmly established habits. We may expect now one tendency to win out, and now the other. On a priori grounds at least there should be no more reason for being unable to reconstruct an IE paradigm of personal pronouns than of nouns.

If this were a deductive argument only, we might still suspect it to contain a fallacy somewhere, but the history of the pronouns of individual languages points the same way. When a pronoun or pronominal paradigm has once been established, it often shows a marvelous persistence of form, and except for the inevitable sound changes, may remain unaltered for thousands of years. Thus IE **mē*, **me*, found in Skt. *mā*, Av. *mā*, Gr. *με*, Alb. *mua*, Ir. *mē*, Lat. *mē* (with added *d*), and, with added particle **ge*, in Goth. *mi-k*, OHG *mi-h*, still persists without analogical change in a large part of its territory. French *me*, *moi* are the direct descendants of the Latin *mē*, German *mi-ch* is identical with the OHG form, and Gr. *με* is still in existence in the modern language. Similarly IE **nōs*, **nos*, found in Skt. *nas*, Av. *nā*, Lat. *nōs*, which also was the basis of OBulg. *ny* acc. and *nasъ* gen. and loc., still exists in French *nous* with only phonetic changes. The history of the German personal pronoun is particularly free from change. OHG *ih*, *mīn*, *mīr*, *mih* not only show, by comparison with Goth. *ik*, *meina*, *mis*, *mik*, that with one insignificant detail excepted, the entire paradigm was inherited

³ As examples might serve the comparisons *good*, *better*, *best*, and *bad*, *worse*, *worst*; the plurals *men*, *sheep*, *oxen*; the inflection of the verb *to be*; principal parts like *see*, *saw*, *seen*.

from the pre-Germanic, but exist almost unchanged in the modern German *ich, meiner, mir, mich*. There was thus a continuous period of two thousand years⁴ in which no other change took place than the divergent adaptation of the ending of the genitive singular. Practically the same thing can be said of the plural *wir, unser, uns, uns*, in which the dropping out of the variant OHG *unsih* for the acc. is the only additional change in the same period. Also in the paradigm of the second person German has continued intact the OHG forms with the solitary exception that *Euch* = OHG *iuwih* has displaced the older *iu* as dative.

An interpretation of these facts different from the usual one suggests itself. There is very slight probability that forms of the immense frequency of usage characteristic of the personal pronouns should have disappeared completely from every IE language or language group except one. The pronouns are on a different basis from substantives, for which such complete losses can often be made reasonable because substitutes are so easy to find. Pronouns, however, are indispensable, and cannot be borrowed readily from other languages, so that the assumption that the largest part of the declension of the personal pronouns has disappeared from all languages, and that often only one language shows traces of an original form, becomes highly improbable. We have the right to expect that every form of an IE personal pronoun that really existed should show itself in more than one language, for pronouns cannot suddenly disappear, but must gradually give way to others which were built up out of old material. We may therefore say that when support for an alleged IE pronominal form can be found in only one language or language group, the most reasonable assumption is that no such IE form existed, and all the more so when such form is readily explained on the basis of material from the language in which it was found. Consequently we may suspect that the immense differences between many forms of personal pronouns with identical syntactic function is not a secondary development originating by analogies too complicated to trace, but that they are due to the fact that no such IE forms had as yet been developed. To quote one example, the divergence between Skt. *asmā'kam* Av. *ahmākəm*, Arm. *mer*, Gr. *ἡμεῶν*, etc., Lat. *nostrī -um*, Ir. *ar-n-, nar*, Goth. *unsara* and OHG *unsēr*, Lith. *mūsū*, OBulg. *nasъ*, is not due to analogical formations which displaced

⁴ We may contrast with this, as an example of personal pronouns which in more recent times have yielded completely to analogical influences, the modern Greek plural 'you', which shows no trace of old forms, but is based on the singular.

an original IE gen. pl., but comes from the way each language created for itself forms analogical to those of demonstratives and nouns, in place of mere stems of which the syntactic function had not yet been definitely limited as genitives.

It seems that the treatment of IE personal pronouns has been largely under the dominance of a priori considerations. Owing to the fact that nouns and demonstrative pronouns had developed a definite and complicated declension, it has been assumed that the same system of cases must have existed for IE personal pronouns. An unprejudiced application of the principles of comparison will likely yield a far different result. It is therefore of importance to reexamine the various compared pronouns of the different languages to determine how much of a declension IE personal pronouns really had. As a result of such a comparison and of the analysis of those forms which have any right to be considered as Indo-European, two propositions can be established: 1) That there were no case-endings in the proper sense,⁵ but only stems and stems with added particles. 2) That these stems and stems with particles were often as yet not well limited syntactically, did not function, e.g. as genitive, dative, or accusative, but had the stem meaning only, emphasized by particles at times, while the syntactic function depended on the context.

I proceed to the examination of the various pronominal forms to establish the basis for these conclusions.

I. The First Person Singular

1. *Nominative.* The earliest form must have been *eĝ, not *eĝom or *eĝhom, as is argued by J. Schmidt, KZ 36.405 ff. There are a number of forms which cannot possibly have had an -om, and there is no support for the *eĝ(h)o assumed in Brugmann, Grundr.¹ 2. 808. In the first place, then, there are Lith. *asz*,⁶ *esz*, Pruss. *as*, *es*, Lett. *es*, which could not have lost a nasalized *q* which is the Lith. representative of final -om, and which therefore must go back to *eĝ or *eĝh. Arm. *es* is certainly *eĝ, for IE *ĝ* became *c*, and *c* became *s* before a consonant, so that one

⁵ That the declension of personal pronouns was not as yet complete in IE times, is surmised by Streitberg, *Urgerm. Gram.* 261, and Hirt, *Idg. Gram.* 3. 22 f. The latter also calls attention to the difference between pronominal forms and ordinary inflected words.

⁶ The *a* for *e* in *asz* must be due to the influence of oblique cases, e.g. gen. *manê,s* and acc. *manê*, where in turn it came from the second person *tavê,s* and *tavê*.

sandhi form here became universal.⁷ In the next place Hittite *ug* must be from **eġ* or **eġh*, its *u* being derived from the *u* of *amug* acc. dat. loc. (secondarily also nom.), which in turn got the *u* from the second person *tug*: IE **tū*, **tu*. Finally, among the Germanic forms the *ik* of the Old Norse runes could only have been **eġ*, for final *a* from *om* had not as yet dropped.⁸ Consequently Goth. *ik* OHG *ih* OSax. *ic* OIcel. *ek* at least partially also go back to **eġ*, although **eġom* is possible and must be assumed for the enclitic *-ka* or *-za* of the runes. Between **eġ* and **eġh* the former is to be preferred because the Arm. and Germanic forms must have been unaspirated, and the Baltic and Hittite could come from either.

That forms in *-om* also go back to IE times may be concluded from the correspondence of ONorse *-ka -za* with Skt. *ahám*, Av. *azəm*, OPers. *adam*, and OBulg. *azъ*.⁹ Of these the Skt. form points to **eġhom*, the Norse to **eġom*, and the others could come from either. Since there is no proof at all for a supporting **eġh*, and since Gr. *ἐγώ*, etc. and Lat. *ego* also point to IE **eġ-*, it is better here to assume that the *ġh* of *ahám* is secondary. It was due to the analogy of the *ġh* of **me-ġhi*, Skt. *máhy-am*, which functions as dative. There thus was a mutual influence of the two forms. The *-om* of *máhyam* comes from *ahám*, while the latter received its *ġh* from the former.¹⁰ Granted, however, that the *ġh* was older than the Skt., the same process simply took place at an earlier age, either Aryan, or much less probably, Indo-European.

The Greek and Latin forms were convincingly explained by Schmidt, loc. cit., by assimilation to the first person singular of the verb.¹¹ In Greek, *ἐγὼ φέρω* already had as pattern **ἐγὼν ἔφερον*, and later brought about also *ἐγὼν ἔδων*,¹² while in Latin *ego fero* was the only possible influence. It might be added that IE **eġom* itself may have been due to a similar cause, i.e. assimilation to the imperfect first person **e-bher-om*.¹³ See Kieckers, *IF* 38.218.

⁷ Cf. Brugmann, *Grundr.* 1. 565, 634.

⁸ Thus the neuter nom. acc. of *horn* is still *horna* in the old runes. Cf. Noreen, *Altisl. u. altnorw. Gram.* 3 215, Streitberg, op. cit. 262.

⁹ The long vowel *ā* in the OBulg. form is problematic. Berneker, *Slav. etym. Wörterb.* 35, suggests contraction with a conjunction *a*.

¹⁰ The association between nom. and dat. cases as presupposed would be difficult, but IE **me-ġhi* must have been used also as an acc. at one time. See below.

¹¹ Schmidt aptly parallels the late Cretan ἀμέν nom. pl. 'nos' after φέρομεν, the κοινή form which had replaced the Doric φέρομεν.

¹² The aorist ἔδωκα must have been of more recent origin, and patterned after the older ἔηκα and ἔθηκα.

¹³ If this was the origin of **eġ-om* we must assume that this form also existed

Two further forms are explained by addition of the particle *ē: Gr. ἐγώνη and OHG *ihha*, in the former case to ἐγών, in the latter to *ēg. The Alb. *u* is the vulgar Lat. *eo* < *ego*. cf. G. Meyer, *Alb. Wörterb.* 454. The remaining Ir. *mē me-sse* is the accusative used as nominative.

The result of all this is that we may consider *ēg as the oldest IE form, alongside of which *ēg-om had made its appearance. Forms with *gh* were probably Sanskrit, or, at least, Aryan only. The fact that *ēg existed alongside of *ēgom shows that the latter was not a neuter substantive, as Schmidt, loc. cit., supposed. It was rather, in accordance with the more common view, extended by the particle *om, or it was assimilated in IE times to the ending of the verb.

2. *Accusative.* The universal reconstruction of *mē, *me as the IE form is unassailable, based as it is on Skt. *mā*, Av. *mā*, Gr. *με*, Alb. *mua*, Ir. *mē*, and, with added particle *ge,¹⁴ on Goth. *mi-k* OHG *mi-h* OIcel *mi-k*. The added *m* of Skt. *mā'm* Av. *mām* and OBulg. *mę* was probably the common ending of the accusative sing. of nouns and demonstratives rather than an added particle, as claimed in Brugmann Gr.¹ 2. 812. Lat. *mē* also must have been based on IE *mē*, although the final *d* of the earliest sources gives trouble. However, cf. I. 4 on the *d* of the ablative. Ir. *me-sse* shows an added particle (part. augens), whereas Lith. *manė*, is made by adding *m* to the form used as gen. sing.

Alongside of this *me an *eme, with an initial *e* derived from *ēg(om), seems to have existed as early as the IE period, for Gr. ἐμέ does not stand by itself, but receives support from the Arm. *is* (originally dat.) and *inj* dat. < *eme-ghi,¹⁵ and from Hittite *amug*, which was *eme-g with *u* after *tu-g* 'te' and with *a* for *e* after the plural *anš-aš* 'us'.

3. *Genitive.* In a part of the IE territory are found forms derived from *mene, sc. Av. *mana*, OBulg. *mene*, and Lith. *manė*,¹⁶ with *a* after *tavė* and *savė*.¹⁷ This IE *mene was evidently the acc. *me with particle

at one time in Italic, and that Osc. *tifum* 'tu' Umbr. *tium* 'te' and Osc. *siom* 'se' were analogical to it. On the other hand I see no weight in Schmidt's and Kieckers' objection to *om as particle. Just because *em is found in Lat. *id-em*, Skt. *id-am* is no reason why *om should not occur in personal pronouns. The variety of particles found with pronouns, e.g. in Latin or Irish, should warn against the assumption that all *m*-particles must have the same vowel.

¹⁴ The assumption of a particle *ge for these Germanic forms and the Hitt. *amug* is not absolutely necessary. The *g* may come by analogy to the nom. It is to be observed that Goth. *ik* and *mik* as well as Hitt. *ug* and *amug* rhyme.

¹⁵ This Ir. dative and Hitt. *amug* dat. acc. loc. show that the initial *e* was not confined to the acc.

¹⁶ The usual Lith. form *manė,s* is related to *manė* as *tavė,s* to *tavė* (II. 3).

¹⁷ IE *eu* = Lith. *av*.

*ne of Gr. Thess. ὅ-νε, τό-νε, of Lat. *ego-ne*, *tu-ne*, and of Skt. *ca-ná* and the like. This etymology suggests that Skt. *máma*, with its obscure *m*, may be *me with particle *me,¹⁸ which Sturtevant, JAOS 47.180 f., reconstructs on the basis of the Hittite. Now if *ne and *me were merely emphasizing particles, it appears that the stem-form *mē, *me, which appears universally as acc., must originally have functioned also as genitive, and this is further corroborated by the Greek forms ἐμεῖο, ἐμέο, ἐμεῦ, ἐμοῦ, μεῦ and μοῦ, which all go back to *(ē)με-σγ or *(ē)με-σο, showing that here too the stem (ē)με originally functioned also as genitive,¹⁹ and later became extended by the ending of demonstratives.

Other genitive forms are clearly cases of possessive pronouns, so Lat. *meī*, Goth. *meīna*, OHG. *mīn*, OIcel. *mīn*, and Lith. *māno*. Probably also Arm. *im*, for which cf. Brugmann, *Grundr.*² 2.2.403, 416. Since the various language groups differ radically among themselves, no gen. derived from a possessive has any claim to IE origin, and this leaves *mē, *me, extended with particle to *me-ne in part of the IE territory, as the IE gen. form.

4. *Ablative*. Only Aryan and Latin show any forms at all similar, and these disagree as to the vowel, having in common only the final *d* or *t*. The explanation of each must be sought independently. Skt. *mát*, Av. *maṭ* is not formed like the ablatives of nouns and demonstratives, which have -āt, but looks more like neuter pronominal nom. acc. forms of the type *tát* 'hoc' = Gr. *τό*. Apparently *mát* did not have any case meaning originally, but was a mere stem,²⁰ having received its *t* < *d* by analogy to *tát* and the like. This stem is also found in the possessive adjective *mad-i'ya-h*, paralleled by *tad-i'ya-h*, *asmad-i'ya-h*, *yuṣmad-i'ya-h*, and *yad-i'ya-h* of other pronouns. Since in all of these *d* could have had no ablative meaning, and since ablatives in -ād are confined to these very personal pronouns, it is probable that *mát* was originally indifferent to case usage, but became associated with ablatives like *tā't* and *yā't* because of the final *t*, and in the building up of the Skt. paradigm was consequently commandeered for ablative usage.

The Lat. *mē(d)* (also acc.) likewise cannot perpetuate any IE pro-

¹⁸ Since this is uncertain, and since the assumption of reduplicated *me is equally dubious, it is better to follow Brugmann, *K.Vgl. Gr.* 407, in assuming that *máma* = Gr. ἐμέ with initial *m* from *mana, IE *mene. It would be another indication that *(e)me was gen. as well as acc.

¹⁹ Cf. Brugmann-Thumb, *Gr. Gr.*⁴ 290.

²⁰ Cf. Thumb, *Handb.* 246 and references given for various opinions of the relation of these adjectives to the abl. -d. According to our opinion, they were an old inherited class.

nominal ablative, nor does it have a particle **ēd*,²¹ as claimed by Brugmann, *IF* 23.310 ff., but its *d* was introduced by analogy to other ablatives. Osthoff, *Perf.* 127 f., believed the *d* was old in the ablative *mēd*, but that when it began to drop, the co-existence of *mē* and *mēd* in the ablative brought about *mēd* alongside of *mē* also in the accusative. However, Sommer, *Handb.*² 411, showed that there was an objection to this in the fact that according to the testimony of the inscriptions *mēd* was the earlier form for both acc. and abl., and that the dropping of the *d* was therefore a phonetic process. We must go back to pre-historic times for the explanation. The stem-form *mē* was originally used as an ablative as well as accusative, but became *mēd* first in the ablative by analogy to ablatives of demonstratives and nouns, e.g. *Gnaiwōd*, then the co-existence of *mē* and *mēd* in the ablative brought about *mēd* alongside of *mē* in the accusative, and finally the form with *d* won out in both cases before the time of the earliest documents.

The only other abl. with distinct form is Arm. *y inēn*, which certainly can have no connection with either Aryan or Lat. forms. There thus is no evidence at all for any distinct IE form for the ablative of 'I', and the stem **mē*, **me* had to do service for this case also.

5. *Dative*. Most of the datives of the various languages have no bearing on the IE form because they are of secondary origin, or are isolated, or because another case is used with dative meaning. For Gr. *ἐμοί μοι* see below I. 8. Alb. *mua* is an accusative. Lith. *mānei* Pruss. *mennei*²² and OBulg. *mbnē*²³ are the genitive **mene* fitted out with dative case endings. Goth. *mis* OHG *mir* etc. are based on the acc. **me*, and derive their *s* from the plural, not, however from IE **nes*, as suggested by Brugmann, *Grundr.*¹ 2.2.818, for the existence of **nes* alongside of **nōs*, **nos* is anything but certain anywhere, and in Germanic even the latter does not occur. Rather does, e.g., *mi-s* get its *s* from **ns*, Goth. *uns*,²⁴ just as, conversely, the *-ih* of the OHG acc. pl. *unsih* comes from the acc. sing. *mih*.

All closely related datives of the IE language groups are based somehow on **meghi*, as reconstructed in Meillet *Intr.*⁶ 295 and Hirt *Idg. Gramm.* 3.24. In Skt. *māhyam* **meghi* is extended by *-am* < *-om* by

²¹ J. Schmidt assumed **id*, which Brugmann, loc. cit., shows to be phonetically impossible.

²² The dative ending of Pruss. *i*-stems is *-ei*, borrowed from *iā*-stems. See Berneker, *Preuss. Spr.* 190 f.

²³ Cf. Hujer, *IF* 30. 49 ff., for a possible explanation of *ъ* for expected *e*.

²⁴ This must have occurred before the time when according to Verner's law pre-Germanic **mis* became **miz*.

analogy to **eġ-om*²⁵, or else it has the particle **om* added independently. Skt. *māhya* Av. *ma'byā ma'byō*²⁶ show other more or less obscure reformations of the same. Lat. *mihī* Umbr. *mehe* are **meġhi* fitted out with the dative *-ei, -ī* of the third declension, while Arm. *inj* is from **eme-ġhi* (Meillet, loc. cit.). This IE **me-ġhi* (also **eme-ġhi*?) is, as Hirt, loc. cit. says, clearly the stem form **me* with added particle **ġhi* found in Gr. *οἰ-χι*.²⁷

6. *Locative*. It is impossible to reconstruct an IE form because the few language groups that show a distinct form all show influence of nominal and demonstrative paradigms, and at the same time differ from each other. Skt. *māyi* was made from **moi* (below I.8) by adding the loc. sing. ending *-i* of e.g. *śūni*, as shown by Hirt, loc. cit. The Gr. *ἐμιν* has an ending originating with demonstratives, which appears in Skt. *tāsmīn*, loc. of *ta-*. Lith. *manyjė* is patterned after the locative of nominal *i*-stems, e.g. *naktyjė*.

7. *Instrumental*. Here also there is not a single perfect correspondence between the various language groups, and consequently no presumption whatever that such an IE form existed. Skt. *māyā* is much more probably made by adding the common instr. ending *-ā* of, e.g., *śūn-ā* to **moi*, than patterned after the instrumentals of *ā*-stems like *tāyā*. OBulg. *mъnojа*, like the dative *mъně*, was modelled upon the gen. *mene*, under the influence of *tojа* fem. instr. sing., and could not have a common origin with the Skt. form even if the latter was patterned after *tāyā*. There is of course nothing improbable about patterning a form of a personal pronoun after a demonstrative feminine form,²⁸ since the former served for both genders. Finally, Lith. *manimì* again is patterned after the instr. of *i*-stems, as *naktimì*, while Arm. *inev* has its *v* from IE *-bhi*, and stands by itself as instr. sing. All the other languages show other case forms in instrumental use, e.g. Lat. *mē*, Gr. (ἐ)μοί, etc. The conclusion is inevitable that there was in IE no formally characterized instr. sing.

8. The *accusative genitive dative* **moi*. The existence of this in IE cannot be disputed, being based on Skt. and Av. gen. dat. *mē* (Skt. also

²⁵ Cf. I. 1.

²⁶ The *b* in place of Skt. *h* is taken over from the second person *taibyō* (II.5).

²⁷ Schulze ap. Löwe KZ 48. 98 is certain that **meġhi* is dissimilated from **me-bhi* because of **te-bhi* and **se-bhi*. However, a glance at the want of correspondence between other cases of 'I' and 'thou' causes one to wonder why such correspondence is to be assumed here. Only the accusatives in fact are formed analogously.

²⁸ Thus the OBulg. datives *meně*, *tebě*, and *sebě* have the ending of *ā*-stems.

acc.²⁹), OPers. *mai*y, Gr. *μοι* dat. gen. (*ἐμοί* when emphatic, with *ἐ* after *ἐμ*), Ir. -*m*- dat., Lith. *mi* acc. dat., OBulg. *mi* dat. In Latin the gen. *mīs* is this **moi* with addition of the regular *s* of the genitive case, but *mī* probably comes only from *mihī*,³⁰ since there are no corresponding forms **tī* and **sī* in the other persons.

This IE **moi*³¹ is usually considered to be a locative originally, for in appearance it reminds one of Gr. *οἴκοι*, Lat. *domī*, and the like. That this cannot be the correct explanation is shown by the fact that in those languages which, like Aryan and Balto-Slavic, retain the locative as a distinct case, the use of **moi* as a locative is unknown. It is furthermore highly improbable that a form once established in a narrow use should lose its identity at the very time when the tendency for other widely used forms to specialize began to assert itself, all the more since **moi* looked like the familiar nominal loc. From this appearance also comes the refusal to recognize as original the use of **moi* in Skt. and Lith. as accusative,³² whereas in itself the widest case usage gives the impression of a survival rather than an innovation. Nor am I convinced by Havers, *Untersuch. zur Kasuslehre d. idg. Spr.*, that the use of **moi* as genitive in Skt. and Gr. must be referred to a mistaken interpretation of the 'dativus sympatheticus'. He has shown only that there is a border line between the two cases, but his conclusion would be valid only if we must assume that **moi* originated as a locative and could not well spread to any other case except the dative. Much more probably in fact **moi* was a form comparable to the Lat. nom. *quī* = Osc. *pui* < **q^uoi*. If it was not an old unanalyzable stem of which the initial *m* was due to assimilation to **mē* **me*, it must have been an ablaut form of **me* with the deictic particle **i* (found in Gr. *ὀνροσ-ι* etc.) contracted at an early date. Cf. Meillet, *Mem.* 12.232 f. for this particle.³³

²⁹ There is only one doubtful example, sc. RV 5. 12. 3. However the use of the corresponding *te* of the second person as acc. is on a somewhat firmer foundation, although not beyond doubt. Cf. Pischel, *ZDMG* 35. 714 ff., Delbrück, *Ai. Syntax* 204. Oldenberg, *Rigveda* 25 ff., is sceptical about every passage cited, and would interpret differently. However, *te* does occur as acc. in Prakrit and is recognized by Woollner, *Intr. to Prakrit*.

³⁰ Cf. Sommer, op. cit. 410.

³¹ Hitt. *mu* might be added as indirect evidence for **moi*. This enclitic acc. dat. received its *u* for *oi* from *amug*, tonic acc. dat. loc., which in turn owes it to *tug* acc. dat. loc. of 'tu'.

³² So Oldenberg, loc. cit., provided its existence is assumed.

³³ Meillet would derive Lith. *mi* (and the corresponding *tī* and *sī*) from **me* or **moi* with elision of the final vowel and addition of the particle referred to, a cognate of which is the *i* of the Lith. imperatives *ved-i* and *vesk-i*, and of the particle *gi*. It is better to derive **moi* itself from **mo* with particle **i*, *i*.

We may summarize the results so far as follows: The IE pronoun 'I' had only the following forms: **eġ* or **eġ-om* nom., **mē* (**me*) or **emē* (**eme*) acc. (originally any oblique case), **me-ne* and **me-ġhi*, the same form with particles, functioning as gen. and dat. respectively, and **moi* acc. gen. dat., probably with particle *ī*.

II. The Second Person Singular

1. *Nominative.* The **tū*, **tu* universally assumed for IE is certain and requires no comment. Cf. Av. *tū*, Arm. *du*, Gr. Dor. *τὺ* (*σὺ* with *σ* after *σέ* < **τφε*), Alb. *tī*, Lat. *tū*, Ir. *tū* (*tu-ssu* with part. augens), Goth. *þu*, OHG *dū du*, OIcel. *þū*, *þu*, *þo*, OBulg. *ty*. There are only a few analogical extensions: Gr. Boeot. *τοὺν* with *ν* after *ἐγών* (Boeot. *λών*), Hom. *τῷνῃ* after *ἐγώνῃ*. Skt. *tvām*, Av. *tvəm* (Gath.), *tūm*, OPers. *tuwam* = *tu* + *om*, probably after *ahām*. Osc. *tiūm*, *tiū* is the acc. **tē* with particle **om*.³⁴ Cf. Planta *Gramm.* 2. 231 f., Buck, *Gramm. of Osc. and Umbr.* 140. Objections against the use of the acc. for nom. have no weight in view of the laxity of pronominal case use in general, and particularly in view of Hittite *zig* 'tu', which must be connected with **tē*,³⁵ even though the *zi* ordinarily points to **ti* rather than **tē*, or **te*. However, it seems that *zi* < *tē*³⁶ is possible.

2. *Accusative.* IE **tue*, *tue* is found in Skt. *tvā*, Av. *θwā*, Gr. *σέ*, Alb. *tū*, and **tē* must be the basis of Lat. *tē* < *tēd* (for the *d* cf. *mēd* I.4). With short *e* in Ir. -*t* (e.g. *fri-t* 'contra te'), and surely in OHG *di-h* OIcel. *þi-k* Norw. *þe-k*, all with particle **ge*, as Goth. *mi-k* from **me-ge*. From the form without *u* also comes Umbr. *tiom*, i.e. **tē* with particle **om*.

Addition of *-m* of the acc. of nouns and demonstratives is seen in Skt. *tvā'm*, Av. *θvqm*, OPers. *θuvām* < **tvēm*, and OBulg. *te* < **tem*. Since the stem forms differ, this innovation was not performed in common.

Repeatedly the acc. appears with the *u* of the nominative. So Gr. Dor. *τὺ*, Ir. *tū*, *tu-ssu*, Goth. *þu-k*, and Hittite *tu-g*,³⁷ the two latter with

³⁴ It has been maintained that *tīfūm* could have come from **tū*, since Osc. *castrid* < **ūd* and a few Umbr. words, e.g. *pīr* = Gr. *πῦρ*, show this change of *ū* to *ī*. Buck, op. cit. 41, thinks it may have taken place in Umbr. monosyllables and in final syllables in Osc. and Umbr. Since *tīfūm* is Oscan, and the syllable in which it occurs, is not final, there is no possibility of its being **tū-om*.

³⁵ Cf. Hrozný, *Die Spr. d. Hethiter* 107 and Sturtevant, *LANG.* 4. 229.

³⁶ Sturtevant, loc. cit., compares the Hittite suffix *-zel -zil* with Lat. *-tēla* in, e.g., *tu-tēla*, which is an exact parallel of *zig* < **tē-g*. That *zig* should come from **tū-g* (Hrozný) has no basis in Hittite sound laws.

³⁷ The assumption of Hrozný 110 f., that *tu-g* comes from **tue-g* is based on no Hittite sound change, but is merely evidence of his reluctance to find the stem *tu-* in oblique cases.

g-particle.³⁸ Partly this was not so much a use of the nom. for acc. as a remnant of the time when the two ablaut forms of the same stem had as yet not been assigned to different cases.

There are also a few sporadic irregularities. Gr. Boeot. *τιν* was a locative-dative, and Lith. *tavė* is the same form as the IE genitive with added *-m*.

This leaves **tṷē* (**tṷe*) and **tē* (**te*) as the two certain forms of the IE acc., with the probability that **tū* (**tu*) also could thus function.

3. *Genitive*. The only possible IE form would be **teye*, found in Skt. *tāva*, Av. *tava*, Lith. *tavė*, and (probably) in Ir. *do*, *du* < **tou*, **to*, also Kymr. *teu*. OBulg. *tebe* is the same **teye* with a *b* taken from the dative *tebē*, where it was original. Lith. *tavė.s* also goes back to **teye*. After the extension of this form by *-m* in the acc., the co-existence of *tavė* and *tavė*, there caused *tavė* alongside of *tavė* as a genitive. This *tavė* took the regular genitive ending of *ē*-stems, but retained its nasalized vowel, i.e. *tavė.s* arose by contamination of *tavė* and *tavēs*.

Derived from possessive adjectives, each in their own way, and without possible IE origin, are the following: Arm. *k'o*, Lat. *tuū*, Goth. *þeina*, OHG *ðin* OIcel. *þín*, Pruss. *twaisei*, *twaiasei*.

The IE **teye* had no ear mark as genitive, and differs from the acc. **tṷē* (**tṷe*) only by its ablaut. Undoubtedly the distinction was secondary, as can be seen on the one hand from OBulg. *tebe*, which is acc. as well as gen., and from the history of the Lith. forms, which presuppose **teye* as acc., on the other from the Gr. genitives *σεῖο*, *σέο*, *σεῦ*, *σοῦ*, which are **τφε* with added gen. ending *-sṷo* or *-so*, and thus presuppose **tṷe* in genitive use.

4. *Ablative*. Only three language groups have distinct forms. Again the Arm. *ik'ēn* stands by itself.³⁹ Skt. *tvát* Av. *ṭwāt* and Lat. *tē(d)* have endings exactly like those of the first person, and are to be explained analogously. Av. *ṭwāt* got its long vowel from the demonstratives. There was no IE ablative of 'thou'.

5. *Dative*. The IE form was **te-bhi*. Av. *ta'byō* shows the same extension of this as the first person *ma'byō*. Lat. *tibi* Umbr. *tefe* have their ending assimilated to the regular dative of consonant stems, while OBulg. *tebē* is **te-bhi* with ending assimilated to the datives of the *ā*-stems, and Pruss. *tebbei* is the same with the *i*-stem ending.⁴⁰ Skt.

³⁸ Cf. note 14.

³⁹ Cf. Pedersen, loc. cit.

⁴⁰ See note 22.

*túbh-y-am*⁴¹ is the IE form with the same **om* as *máhy-am*, and may have received the same either independently or from it or the nom. *tw-ám*. The stem form *tu-* reminds one of Goth. *þus*, and it may well be that *tu-* and *te-* existed alongside of each other from the IE period.

Other languages show deviating forms. Goth. *þus*, just mentioned, has the same -s as the first person *mi-s*, but added to the nom. stem, while OHG *di-r* OIcel. *þé-r* are like the first person also in having the vowel *e*. It is possible that these were patterned after Goth. *mi-s*, OHG *mi-r*, or that they were made independently in the same way, provided that there was at one time a dat. and acc. pl. **us* corresponding to **ns* of 'we'. Brugmann's **ues* (loc. cit.) existed no more probably than **nes* (see IV. 8, V. 8).

Arm. *k'ez* < *k'ej* is patterned after *inj* 'mihi', and Lith. *távei*, *táv*, with -*ei* like Pruss. *tebbeĩ*, takes its stemform from the acc. *tavė*, and gen. *tavė̃s*, *tavė̃s*.

Thus only **te-bhi* and, possibly, **tu-bhi* existed as distinct IE datives. This -*bhi* looks like a real case-ending and suggests -*phi* in *l-phi* 'with might', and the Skt. instr. pl. -*bhiḥ* e.g. in *agní-bhiḥ*. Nevertheless the supposition that the dative should be the first case to receive a real ending, which was probably of prepositional origin, even though the dative is not used with prepositions, is not convincing. More probably -*bhi* contains a particle related to Av. *bā*, *bāt* 'surely', Gr. *φί* 'as', and Goth. *ba* 'if'. The final *i* is then to be explained as due to the influence of **me-ghi*.

6. *Locative*. As in the first person, there are no possible affinities between the locatives of the actual languages, and therefore no evidence that such an IE form was in existence. Skt. *tvé tvāyi*, Lith. *tavyjė*, and OBulg. *tebě*, each in its own way, show clearly the influence of nominal locatives. Gr. *τιν* is like *μιν* of the first person.

7. *Instrumental*. Arm. *k'e-v* with *v* < -*bhi* stands by itself again. The influence of nominal instr. endings is clear enough: Skt. *tvāyā* is like *māyā* (1.5), whereas *tvā'* and Av. (Gath.) *θwā* are patterned directly after the old instr. sing. of *o*-stems. OBulg. *toboja* is like *mъnojā* (I.7) and Lith. *tavimì*, like *manimì*, has the ending of nominal *i*-stems. There is no justification for attempting to reconstruct an IE form.

8. *The accusative genitive dative* **toi* is as well established as **moi*. Cf. Skt. *tē* acc. gen. dat., Av. *te*, *tōi* (Gath.) gen. dat., OPers. *taiy* gen.,

⁴¹ The common assumption that *tú-bhyam* stands for **te-bhi-om* presupposes an analogy which is by no means easy, depending on a close association between dat. and nom. case. Cf. Hujer 51 f. for various reasons for considering the *u* original.

Gr. *τοι* (*σοι* with *σ* after *σε*) gen. dat., Lat. *tī-s* gen. (with *-s* like *mī-s*, I.8), OBulg. *ti* dat., Lith. *tī* acc. dat., with **ge* in particle *tē-g*. The Skt. and Lith. forms also function as acc., and, as in the corresponding **moi*, this wider use was probably the original.

As to its earlier history, **toi*, for the same reasons as **moi*, must have been merely a stem or stem with particle *ī*.

The only IE forms of the second singular thus are **tū* (**tu*) nom. sing., but often found as stem form in other cases, **tyē* (**tye*) or **tē* (**te*) acc. (originally any oblique case), **teye*, another form of the stem functioning as gen., **te-bhi* or **tu-bhi*, stem with particle, functioning as dative, and **toi*, an old stem or stem with particle used as any oblique case.

III. The Third Person (Reflexive)⁴²

1. *Accusative*. IE **syē* is found in Gr. *ἐξ, εἶ*, and Alb. *u-, -u*. The following point indirectly to **sē* (**se*): Lat. *sē(d)*, with *d* as in *mē(d)*, *tē(d)*, Osc. *siom* = **sē* + **om*, like Umbr. *tiom* 'te', Goth. *si-k*, OHG *si-h*, etc. with **ge*, as OHG *mih* and *dih*, OBulg. *sę* = **se* with acc. ending *-m*, as *mę* and *tę*. In addition three forms presuppose IE **seye*; which is otherwise genitive: Gr. *ἐξ* < **σεφε*, OBulg. *sebe* (usually gen.), and Lith. *savė*, with added acc. ending *-m*, parallel to *tavė* 'te'. The Pruss. *sien*, like the corresponding *mien* and *tien* of the other persons, is obscure. For a possible explanation see Berneker, op. cit. 208.

2. *Genitive*: Corresponding to **teye* of the second person we expect IE **seye*, which we have found functioning as accusative in Greek. This is found only in Lith. *savė*, and, with two analogical changes, in *savės* (cf. the history of *tavės* (II.3)), and OBulg. *sebe* (with *b* for *v* after dat. *sebě*, as *tebe*). On the other hand Gr. *εἶο, εἶο, οὔ* comes from **syē* with gen. ending *-sjo, -so*. Since both **seye* and **syē* (**syē*) also occurred as accusatives, the conclusion is inevitable that for the reflexive even the beginning of a differentiation between acc. and gen. had not as yet been made in IE times.

Other genitives of the reflexive are from possessive adjectives of each language, and not of IE origin: Lat. *suī*, Goth. *seina*, OHG *sīn* Lith. *sāvo*, Pruss. *swaisei* (gen. sing. neut.).

3. *Dative*. IE **se-bhi*, exactly parallel to **te-bhi* 'tibi', is supported indirectly by Av. *hvāvōya* < **hvawya* (with ending like Skt. *tūbhyam* and stem **syē*), Lat. *sibī*, Osc. *sífeí*, Pal. *sefei*, Pruss. *sebbeí*, and OBulg. *sebě*.

⁴² The pronouns of the third person with variable gender, of demonstrative origin as they are, do not concern us here.

Except apparently for the Av. form, these run exactly parallel to those of the second person, and their history is identical.

Other languages again show divergent forms. Goth. *si-s* with *-s* like *mis* and *þus*, Lith. *sávei* parallel to *távei*, Gr. *ἐοί* through influence of *ἐε* (III.4) upon *οί*, *ῥίῃ* and *ἐίῃ* with ending like *μῖν* and *τίῃ* (I.6).

4. The gen. dat. (acc.) **soi* is the only other form of the reflexive which can possibly be IE, for Lat. *sē(d)* (abl.) is of course exactly like *mē(d)* (I.4) and *tē(d)*. This **soi* is the Prakrit *se*, Av. *hē, šē*, OPers. *šaiy* gen., Gr. *οί*, Umbr. *se-* of *seso*⁴³ dat., Lith. *si* acc. dat., OBulg. *si* dat. It is also found in Lat. *sī-s* with addition of the *-s* of the genitive. The fact that Lith. *si* functions as acc. as well, shows that **soi* also was originally indifferent to case meaning, and was a mere stem or stem with particle *ī*.

The reflexive thus had only the stem forms **syē* (**seye*), **syē* (**sye*), and **sē* (**se*) (apparently without case distinction as yet, although the two latter appear as acc. quite frequently), the form **se-bhi* appearing as dat., a stem form with particle, and again **soi*, also without case distinction, as the corresponding **moi* and **toi*.

The alternation of **syē* and **sē* is exactly like that of **tyē* and **tē*, and this suggests a common cause, which I believe to be phonetic, not, however, that the forms without and with *y* were sandhi forms. A better explanation is suggested by the fact that with the exception of Au. *hvāvōya* only **te-bhi* and **se-bhi*, never **tye-bhi* and **sye-bhi*, are found in the dative. This means that **te* and **se* came from **tye-* and **sye* through dissimilatory dropping of the first of the two labials in these dative forms. This is further borne out by the converse fact that **tyē* (**tye*) and **syē* (**sye*) are barred from no other form except **toi* and **soi*.⁴⁴

IV. The First Person Plural

1. *Nominative*. IE **yei* is apparently the oldest form, found in Skt. *vay-ām*, Av. *vaēm*, OPers. *vay-am* with the same **om* as **eg-om*, Skt. *ah-ām*. That the form with *-s*⁴⁵ is also IE, is made probable by com-

⁴³ The *-so* is a particle according to Brugmann, op. cit. 408, while Planta 2. 233 f., doubts the entire interpretation of *seso*.

⁴⁴ Brugmann, Grundr. 2. 2. 383, objects that **sē*, **se* can not come from **syē*, **sye* because of the weak grade **s-* in Gr. *σ-φλ*. One would hardly rely much on such an uncertain etymology and would have as good a right to say that because **se* comes from **sye*, *σφλ* cannot be related to **se*. As to **soi* for **syoi*, Wackernagel, KZ 24. 597, thought of enclitic and emphatic forms.

⁴⁵ The *-s* is certainly secondary, and most probably comes from **nōs*, **nos*, of the oblique cases.

paring Hittite *veš* with Goth. *weis*, OHG *wēr*, *wier*, OIcel. *vér*, *vir*. Also OS *wī* and OE *wé* may go back to **yeis*, while the forms ending in short vowels, sc. OS *wi*, *we*, and OEng. *we* seem to go back to **yei*, and OHG *wir*⁴⁶ is a compromise between pre-Germanic **wīs* and **wi* < **wei*. Either **yei* or **yeis* may have entered into the formation of Ir. *sni*, *sni-ssi* (with particle), inasmuch as an unaccented **vei* became **vi*, and then received the initial *n* for *v* from the infixed *-n-* from IE **nos* (IV.8). As to the initial *s*, the most reasonable explanation is that of Thurneysen, *Handb.* 268, that it arose by wrong division of verb form with following subject, taking over the *s* of **-mos*⁴⁷ with the following pronoun.

Forms of other languages substitute other stems. Lat. *nōs* is the same form as the acc., and Alb. *na* goes back to the same stem. Also Hittite *anšaš* is identical with the accusative. Gr. Lesb. *ἄμμες*, Dor. *ᾠμέες* are the acc. *ἄμμε* assimilated to the nom. pl. of consonant stems in *-es*, and Att. Ion. *ἡμεῖς* was formed alongside of the gen. *ἡμέων* after the pattern *σαρπεῖς* to *σαρπέων*,⁴⁸ cf. Brugmann, op. cit. 411. Arm. *mek*, Lith. *mēs*, Pruss. *mes*, and OBulg. *my* (acc. in form) all received their *m* from the singular **me* (through oblique cases of the plural), and were subject to various analogies besides.

2. *Accusative*. All forms were based directly or indirectly on IE **nōs*, **nos*. Those forms which show this ablaut grade, which in the beginning had clearly a wider case meaning, will be discussed in IV.8. The one form which has a claim to being a special IE case form for the acc. is **ns-(s)me*, the reduced grade of **nōs*, **nos* with particle **(s)me*. This is found unchanged in Av. *ahma* and Gr. Lesb. *ἄμμε*, Dor. *ᾠμέ*, while Ion. *ἡμέας* has added the acc. pl. ending of consonant stems, and Skt. *asmā'n* has been assimilated to the ending of *o*-stems.

IE **ns* without particle is found in Goth. *uns* OSax. *ūs*, with *-ik* added by analogy to, e.g., OHG *mih* acc. sing., in OHG *uns-ih* and OE *us-ic*. Any doubts as to the age of this reduced grade without **(s)me* is now removed by the Hittite *anš-aš*, *-eš*, which is the same **ns* with pl. ending.

3. *Genitive*. There was not even the beginning of an IE formation. Most languages show various forms of possessive adjectives: Skt.

⁴⁶ OHG *wir* may as well be a pluralized **ye*, which we find in the dual, and the Germanic forms with short final vowel may also come from **ye*.

⁴⁷ A parallel to this is German *du bist* by misdividing *bis-tu* = *bis du*.

⁴⁸ This does not quite solve the difficulty that Homer knows no uncontracted *ἡμέες* and that usually *σαρπέες* is uncontracted. However, Brugmann's reference to *ρπεῖς*, implying *σαρπέες* to be an analogical restoration, probably takes care of the difficulty.

asmā'kam (rarely Ved. *asmā'ka*), Av. *ahmākəm*, OPers. *amāxam*, Goth. *unsara*, OHG *unsēr*, OSax. *ūser*, OIcel. *vár*, Lat. *nostrum*, *nostrī*, Ir. *ar n-*, *nār*, and (probably) Arm. *mer*.

Gr. *ἡμελων*, Ion. *ἡμέων*, Att. *ἡμῶν* were based on **ḡs-(s)me*, and were fitted out with the nominal ending, probably implying that the IE acc. functioned also as gen. However, in so far as these Gr. forms are derived from *ἡμελων*, they were pluralizations of the sing. *(ἐ)μεῖο* < *-εσσο*, or received their *ι* by association with the sing. secondarily. For Lith. *mūsū* and OBulg. *nasъ* see IV. 8.

4. *Ablative*. The few languages which possess distinctive forms went their own way. Skt. *asmāt* is formed like *māt* (I. 4) and *tvāt*. For Arm. *imēnʃ* see Brugmann, *IF* 22.172, and Pedersen, *KZ* 38.225 f. Alb. *neš* is hopelessly obscure though it must have the *n* of **nōs*, **nos*. There was no IE ablative of 'we'.

5. *Dative*. The only possible reason for assigning a form to IE times could be the fact that Skt. *asmābhyam* (Ved. also *asmābhya*), Av. *ahma'byā*, and Lat. *nōbīs* have the labial in common, but the stems agree no more than the endings, and independent analogical creation is much more probable. The Aryan forms were patterned after the dat. pl. of the second person, e.g. Skt. *yusmābhyam*, which in turn followed the dat. sing. *tū-bhyam*, while the Lat. was similarly patterned after *vōbīs* (V. 5).

Forms of other languages are still further apart. For OBulg. *namъ*, Pruss. *noumā'ns* Lith. *mūms*, which have stems like the dual forms, see IV. 8. Arm. *mez* < **mej* is analogical to the sing. *k'ez* 'tibi'. Goth. *uns-is* is the **ḡs* of the acc. with the ending of the sing. dat. *mis*, while OHG *uns* is the same stem without ending. Gr. *ἡμιν*, *ἡμῖν* is a locative. Evidently no IE dative existed.

6. *Locative*. No reason for assuming a special IE form exists at all. Skt. *asmé* and *asmā'su* are formed with the endings of nominal sing. *o*-stems and pl. *ā*-stems respectively, Lith. *mūsū* and OBulg. *nasъ* have the ordinary loc. pl. ending of nouns, and Lith. *mūsyjė* that of *i*-stems in the singular. Gr. *ἄμμιν*, etc. < **ḡsmin* received the ending with short *ι* from the singular *μιν*, while the long *ι* of *ἡμῖν* crept in by some analogy for which the reason has not yet been found.

7. *Instrumental*. No IE form existed, for each language possessing such a form shows the influence of nominal case-endings of various types. So Skt. *asmā'bhiḥ*, Arm. *mevk*, Lith. *mumis*, and OBulg. *namī*, which disagree in stem-formation as much as in their suffixes.

8. *The accusative genitive dative* **nōs*, **nos* is clearly established by

Skt. *naḥ*⁴⁹ enclitic acc. gen. dat., Av. *nō* gen. dat. *nā* < **nās* acc. (Gath.), *nō* acc. gen. dat., Hittite *-naš* encl. acc. dat., Alb. *na* acc. dat. (proclitic before verb), *ne* < **nōs* (tonic) acc. gen. dat., Lat. *nōs* acc. (nom.), Ir. *-n* enclitic acc. dat. For **nēs*, **nes* there is no certain evidence, although the Skt. and Ir. forms could have had *e*. On the other hand Ir. *sni*, *sni-ssi*, which has been cited for **nēs*, is better explained as above (IV. 1).

IE **nōs* was the basis also of OBulg. *nasъ* < **nōs-sōm* gen. pl. and **nōs-su* loc. pl. Since one *s* dropped, these forms seemed to be made from a stem without *s*, and analogical *ny* acc., *namъ* dat., and *namī* instr. were the result. The Lith. declension of 'we' may also have been influenced by **nōs*, **nos*, in as much as *mūs* acc. may have received its *m* from the sing. **me*, and later the acc. pl. ending *-ūs* from nominal *o* and *u*-stems. Since this *mūs* ended also like *jūs* 'vos' acc., this became the starting point for recasting the whole paradigm so as to run parallel with the second person: gen. *mūsū*, dat. *mūms*, loc. *mūsu mūsyjė*, instr. *mumīs*, all with nominal case endings.

Thus the IE forms of 'we' are: **uei(s)* nom., **nōs*, **nos* acc. gen. dat., and **ns-(s)me*, functioning as acc. Of these **nōs*, **nos* and **ns-* are evidently merely different ablaut grades, while **ns-(s)me* is the weak grade with particle *(s)*me*.

V. The Second Person Plural

1. *Nominative.* IE **ǵūs* is established by Av. *yūš* (Gath.), Av. *yūž-am* (with **om*, as *tw-am*, Skt. *tv-ām* 'tu' etc.), Goth. *jūs*, Lith. *jūs*, Pruss. *iūs*. There is also evidence for IE **ǵū*, which otherwise seems to have functioned as dual. Skt. *yūyām* is clearly analogical to *vay-ām* 'we' because of its second *y*, and this analogy would be difficult to explain if **ǵūs* rather than **ǵū* was the starting point. It will be seen below that the difficult Germanic forms of the acc. and dat. also presuppose **ǵū* as nom. or at least as a plural form. In view of this it seems probable that IE **ǵūs*, like **ueis* 'we', received its *s* secondarily, probably through influence of **uōs* and **nōs*.

The other Germanic forms were all made by assimilating **ǵū(s)*, **ǵu(s)* to the first person. Cf. OHG *ir*⁵⁰ with *wir*, OSax. *gī*, *gi*, *gē* with

⁴⁹ Skt. *vaḥ* is the only form pointing to a short vowel.

⁵⁰ Streitberg, op. cit. 265, suggests that *ir* lost initial *j* by assimilation to the oblique cases without it, e.g. *iu*. Since these can best be explained by contamination with a pre-Germanic **ez* (V. 5), we must look around for a better explanation for this **ez* > OHG *ir*. In pre-Germanic times forms from **us-* (cf. acc. **us-(s)me*) were still in existence, and got a prothetic *ǵ* from **ǵū*. Then the fact that **ǵūs*, **ǵus* and **us* were alongside of each other made it easy to create **ez* alongside of **iez*.

wī, *wi*, *wē*, OEng. *3e*, *3ē* with *we*, *wē*, OIcel. *ér* with *vér*. Also Ir. **si* of *si-ssi* shows the influence of 'we'. After *s-ni* was patterned **s-ŷi* (*ŷ* from IE *ŷōs*), and this changed to **si*. See Thurneysen, loc. cit., for the *s* and the sound change.

Other languages show forms with stems which otherwise function as acc. So Lat. *vōs* (V. 8) and Gr. Lesb. *ῥμμες*, Att. *ῥμεῖς*, the relation of which to the acc. Lesb. *ῥμμε* is exactly parallel to that of *ἄμμες* to *ἄμμε* (IV. 1). OBulg. *vy* is **ŷōs* assimilated to acc. of the nominal *o*-declension, and Alb. *ju* comes from **ŷōs* through the stage **u* (Brugmann, op. cit. 385). Hittite *šumaš* is also the same form as the acc.

Arm. *duk*, like *mek* 'we', has the nominal nom. pl. ending added to the stem form *du* taken from the sing. *du* < IE **tu*.

2. *Accusative*. Forms directly connected with **ŷōs* acc. gen. dat. will be discussed under V. 8. The one distinct acc. form in IE times was **us-(s)me*, with **us*, weak grade of **ŷōs*, **ŷos*, followed by particle *(*s*)*me*, a form exactly parallel to **ŷs-(s)me* 'us'. This is found unchanged only in Gr. Lesb. *ῥμμε* < **ῥσμε*, but Ion. *ῥμέας* Att. *ῥμās* presuppose the same, and went through the same process as the corresponding forms of 'we'. Also Skt. *yusmā'n* is derived from **us-(s)me* by assimilating its ending to that of the *o*-stems, and taking over the initial *y* of the nom. *yūyām*. Finally, Hittite *šumaš* (*šumeš*) is the same **usme* with transposition of *u* and *s* and nominal plural endings. Cf. Hrozný, *Die Spr. der Heth.* 119.

The Lith. *jūs*, with regular acc. ending, and some Germanic forms presuppose the stem form **ŷū* in the acc. The latter, which can be judged only in connection with the closely associated datives, will be discussed under that caption, as will also Arm. *jez*, which is a dative in origin.

3. *Genitive*. Most forms are of possessive origin, parallel to those of 'we': Skt. *yusmā'ka(m)*, Av. *yūšmākəm*, Arm. *jer*, Lat. *vestrum*, *vestrī*, Ir. *far-n-*, Goth. *izwara*, OHG *iuwēr*. Lith. *jūsū* adds the nominal ending to the nom. *jūs*, and OBulg. *vasъ* (cf. *nāsъ*: **nōs*), adds it to **ŷōs* (V. 8). Gr. *ῥμεῖων*, *ῥμέων*, *ῥμῶν* are analogous to the same forms of 'we', and had the same history. We may draw the conclusion that **us-(s)me* also functioned as genitive at one time. A distinctive IE gen. of 'ye' there certainly was not.

4. *Ablative*. What was said of Skt. *asmāt* and Av. *ahmač* in the first person will apply to Skt. *yusmāt* Av. *yūšmač* and similarly Arm. *i jēnǰ* is parallel to *i mēnǰ*. Alb. *juš* is obscure, and other languages had no distinct form, so that it is evident there was none in the IE period.

5. *Dative*. There clearly was no distinct IE form. Skt. *yūṣmābhyam* Av. *yūšma'bhya*, *yūšmaoyō* were patterned after the singular dative *túbhyam* etc. Also Lat. *vōbīs* received its *b* from *tibī*. First **vōbī* after *tibī*, and then *vōbīs* with *-īs* after the instr. dative pl. of the *o*-declension. The difficulty that the stem appears as *vō-* instead of *vōs-* is cleared up by the resemblance of *vōs* to the acc. pl., e.g., *illōs*, which made *s* appear as case ending. However, cf. Sommer, op. cit. 244, and Stolz-Leumann. Lat. Gram.⁵ 283, who think of *nōbīs* < **nōzbīs*, with varying earlier history.

Arm. *jez* is apparently analogical to *kez* 'tibi' which in turn got its *z* (original *j*) from *inj* 'mihi'. OBulg. *vamъ* is parallel to *namъ*, and Pruss. *ioūma(n)s* to *noūma(n)s* 'nobis', but Lith. *jūms* is patterned after the nom. *jūs* and has the nominal case ending.

The obscure Germanic datives and accusatives have been explained convincingly neither by Kluge, *Zeitschr. f. deut. Wortf.* 10. 65 (*izwis* = Gr. $\sigma\phi\omega$ < **(e)zg*he*) nor Streitberg, *Urgerm. Gram.* 265, nor Brugmann, op. cit. 385. That Goth. *izwis* should contain an IE **u̯ēs*, an ablaut variant of *u̯ōs*, **u̯os*, is problematic because there is no other evidence for any such grade. The explanation of the preceding *s*, moreover, as related to the *s* of Ir. *sni* 'nos' and *si-ssi* 'vos' falls with Thurneysen's explanation of the latter (IV. 8), and the assumption that the initial *i* is a particle found in Gr. $\acute{\epsilon}\kappa\epsilon\acute{\iota}$ has nothing to recommend it. Contamination of various stem forms yields a better starting point. Let us assume that in pre-Germanic times there existed as nominative not only **iūs*, Goth. *jūs*, but also **iū*. Also that the analogical nominative of OHG was pre-Germanic, i.e. **ez* existed alongside of **iū(s)*. The first step now was that **iū* and **ez* were contaminated to **eiū*. This form would develop into OHG *iu* dat., OSax. *iu*, *eu* dat. acc., presupposing only that **iū* appeared in the oblique cases as well as the nom. The next step was that this **iū* developed a distinct acc. through influence of the sing. Goth. *mik*, OHG *mih*, which would have been **(e)iūu̯ic* (*u̯* as glide sound). This form is easily recognized in the OHG *iuwih* acc. At the same time a dative analogical to Goth. *mis*, OHG *mir* was formed, which would have been **iūu̯is* in the form without initial *e*. In Gothic this **juwis*, as it would have appeared, became *izwis* according to the proportion: **iz* nom. pl.: *iz-wis* dat. pl. = **iū*: **iū-wis*. The extension of this *izwis* also to acc. use is due to the fact that *uns* 'nobis' and, by analogy to it, *unsis*, also functioned as both acc. and dat. It will be seen at once that this explanation of *izwis* has the advantage of not separating its *-is* from that of *mis* and *unsis*.

6. *Locative*. There is no evidence for any IE form, and all languages with distinct case form show complete parallelism with 'we': Skt. *yuṣmé*, *yuṣmā'su*, Gr. *ὑμιν*, *ὑμῖν*, OBulg. *vasъ*, and Lith. *jūsū* (with stem form from nom. pl.).

7. *Instrumental*. There was no IE form, and the individual languages again run parallel to 'we'. So Skt. *yuṣmābhiḥ*, *yuṣmā'bhiḥ*, Arm. *jevḥ*, OBulg. *vami*, and Lith. *jumīs* (stem as in other cases). Av. *xšmā* has a nominal instr. sing. ending.

8. *The acc. gen. dat.* **uōs*, **uos* is found unchanged in Skt. *vaḥ*, Av. *və* acc., *vā* acc. gen. dat., Alb. *u* acc. dat., Lat. *vōs* acc. nom., probably also in Ir. -b- enclitic dat. It is also the basis of OBulg. *vasъ* gen. loc. pl. (cf. the analogous *nasъ* IV. 8), and here too the appearance that the stem was *va-* caused by analogy acc. *vy*, dat. *vamъ*, loc. *vamī*.

There is no good evidence for an ablaut grade **ues* or **uēs*. For the former has been cited the -vis of Goth. *izwis*, for which see V. 5). As to Ir. *si-*, which was supposed to have been **s-uēs*, see V. 1.

The second person plural thus had only two or three forms in the IE period: **iū(s)* nom., but also appearing as the basis of other cases, **uōs* (**uos*) acc. dat. gen., and perhaps **us-(s)me* acc., which is the reduced grade of **uōs* with particle **(s)me*. Between **iū(s)* and **uōs* there was evidently no relation. They were clearly different stem forms and the only question is whether their *s* was felt as a pl. ending without case value.

VI. The Dual Pronouns

I shall confine myself to reviewing the few reconstructions of IE forms which can stand the test of plausibility. An attempt to trace the origin of the mass of other apparently heterogenous and unrelated forms would lead too far astray, and would encounter too many problems which cannot be answered for the present.

1. *The Nominative of the First Person*. There apparently was a stem form **uē* or **uē̄*, of which the latter is the OBulg. *vě*, and the former, in composition with 'two', is found in Lith. *vė-du* and some Germanic forms: Goth. *wi-t*, OSax., OE *wi-t*, and OIcel. *vi-t*. Without determinable vowel quantity **ue* appears in Skt. *vā'm* (only RV. 6. 55. 11) with particle **om* by analogy to *vay-ām* and *ah-ām*. This *vā'm* is surely somehow the basis of the ordinary form *ā-vā'm*, whether or not *ā-* is the dual of the pronominal stem *a-*, so that *āvā'm* = τῶδε νό (Brugmann. op. cit.² 2. 2. 412), while *āvām* is assimilated to *vayām* 'nos'.

2. *The Accusative Genitive Dative of the First Person*. This was **nō*

according to Av. *nā*, Gr. *νό* nom. acc.⁵¹ and OBulg. *na* acc. Whether Skt. *nāu* represents an IE by-form **nōu* or whether **nā* became *nāu* through the influence of other duals, is uncertain. It seems also that Ir. *nathar*, a gen. with possessive suffix, is based on this same **nō*. More doubtful still is Lith. *mū-du*, which may contain **nō* with *m* for *n* after the pl. and **mē*, or else was patterned after the second person dual *jū-du* with *m* from **mē*.

Whether **n-* as stemform existed beside **nō*, as **ns* beside **nōs* in the plural, is not certain. The Germanic forms like Goth. *ug-kis* and OSax. *unc* acc. dat. might be interpreted in this way, but it is more probable that the weak grade was imported from the plural, and that in fact the whole Germanic dual paradigm was built on the plural.

3. *The Nominative of the Second Person.* Though found nowhere unaltered, **jū*, also used as plural, is presupposed by Skt. *yuvām* < **yū-am* (*yuvā'm* with *-ām* after *āvā'm*), with the same **om* found in **va-am*, *yūyām*, etc. It is found once more in Germanic and Baltic with the numeral 'two': Lith. *jū-du* (acc. also), Goth. **ju-t*,⁵² OSax. *gi-t*, OE *zi-t*, OIcel. *i-t*. The *i* of the last three comes from the first person *vi-t*, *wi-t*.

4. *The Accusative Genitive Dative of the Second Person.* We would expect IE **jō*, which is the OBulg. acc. *va*, and is found in Skt. *vām* < **vā-am*, with the usual particle **om*. It is also the basis of the Ir. gen. *fa-thar*, with possessive suffix like *na-thar* (VI. 2). The scarcity of material for dual forms to substantiate the IE reconstruction is not surprising in view of the loss of the dual in most languages.

In view of the similarity of dual to plural stems their relation to each other is of great importance. Superficially at least, it seems that **uei* 'we' was the dual **jē*, **je* with the plural ending *-i* of **toi* Skt. *tē*, Gr. Dor. *τοι*, and that **ueis* added a second plural ending. It also seems that **jūs* 'vos' is pluralized *jū*, and that **nōs* and **jōs* are pluralized **nō* and **jō*. This possibility would be a certainty for **jē*, **je* and **uei(s)* if the identification of their *u* with the *u* of Skt. *u-bhāu* 'both', with the dual ending *u* of Skt., with the *u* of Av. *visaiti* Gr. Dor.

⁵¹ Gr. *νό* is amply attested by Attic *νό*, which cannot be derived from *νῶ*, and contraction from *νῶε* is out of the question because the latter occurs only in late poetry and is evidently analogous to the dual of consonant stems among nouns. It does not concern us here whether Homeric *νό* is to be considered certain in the one or two passages where it is attested. The regular Homeric *νῶ* is clearly a Greek innovation which makes very doubtful its derivation from **νωfi*, with the *fi-* of *fi-kari* 'twenty'.

⁵² Although this form is not found, Germanists consider it a certain restoration.

*ḫkari*⁵³ 'twenty' were certain. However, etymologies based on the identity of a single sound can never be more than a mere guess, and at the same time other considerations distinctly point against derivation of the plural from the dual in every instance. It is clear that the plural was in IE times much more firmly established in the declension of nouns and demonstratives. There was a complete set of case forms against a small number of IE dual forms. In this particular instance, moreover, we have found that some of the dual forms at one time must have functioned also as plural. Thus **ḫū* is presupposed as plural by Skt. *yuyām* and Germanic forms like OSax., OHG *iu* 'vobis, vos'. There is also a possibility that OHG *wir* is not to be explained as in IV. 8, but was the same **ue* as in the dual with pluralizing -s added in Germanic times. However that may be, the relation of dual and plural stems is more plausibly explained as follows. In the beginning there existed only forms indifferently dual and plural. But **nōs* and **uōs*, although their *s* belonged to the stem, suggested the *s* of plurals like IE **agrōs* nom.⁵⁴ and **agrōns* acc., so that analogical duals were created e.g. according to the proportion **agrōs*:**uōs* = **agrō(u)*:**uō(u)*. In case of **ḫū* the original identity of dual and plural was disturbed by the plural taking on an -s analogical to **nōs* and **uōs*, but the use of **ḫū* as plural was never quite given up in favor of **ḫūs*. Something similar took place when **ue*, originally dual and plural, first received its pluralizing *i*, and, later, also -s, following **ḫū-s* as well as **nōs* and **uōs*.⁵⁵ Those forms which seemed characterized as plurals naturally became preferred in that use, so that the shorter forms were left mainly, but not exclusively, to the dual.

On page 187 is a table of IE pronominal forms which may be reconstructed with some degree of confidence and without use of indirect evidence.

In their comparatively small number of forms and the vagueness of their case usage these paradigms remind one, not so much perhaps of English and French, in which the elimination of forms has left a still more meager paradigm, although even these are more like the IE than Skt. and Lith., but rather of Hittite. If we leave out of account the

⁵³ Cf. Brugmann, op. cit. 2. 2. 121.

⁵⁴ The use of **nōs* and **uōs* as nominatives for the IE period is an assumption based only on the Latin use, but very probable in the light of p. 189, particularly for **uōs*, which may have been the pattern for **nōs*.

⁵⁵ It may well be that we here get a glimpse of the first origin of the pl. sign -s, which in that case was transferred to nouns secondarily.

	1. Sing.	2. Sing.	Reflex.
N.	<i>*eġ</i> <i>*egom</i>	<i>*tū</i> <i>*tu</i>	
A.	<i>*mē</i> <i>*me</i> <i>*eme</i> <i>*moi</i>	<i>*tūē</i> <i>*tue</i> <i>*tē</i> <i>*te</i> <i>*toi</i>	<i>*sye</i> <i>*sē</i> <i>*se</i> <i>*soi</i>
G.	<i>*mene</i> <i>*moi</i>	<i>*teye</i> <i>*te</i> <i>*toi</i>	<i>*sye</i> <i>*se</i> <i>*soi</i>
D.	<i>*meġhi</i> <i>*moi</i>	<i>*tebhi</i> <i>*toi</i>	<i>*sebhi</i> <i>*toi</i>
	1. Pl.	2. Pl.	
N.	<i>*yei</i> <i>*yeis</i>	<i>*iū</i> <i>*iūs</i>	
A.	<i>*nōs</i> <i>*nos</i> <i>*ns(s)me</i>	<i>*uōs</i> <i>*uos</i> <i>*us(s)me</i>	
G.	<i>*nōs</i> <i>*nos</i>	<i>*uōs</i> <i>*uos</i>	
D.	<i>*nōs</i> <i>*nos</i>	<i>*uōs</i> <i>*uos</i>	
	1. Du.	2. Du.	
N.	<i>*yē</i> <i>*ye</i>	<i>*iū</i> <i>*iō</i>	
G.D.A.	<i>*nō</i>	<i>*uō</i>	

genitives like *amel*⁵⁶ 'mei' and *tuel* 'tui', and the ablatives like *ammedaz*,⁵⁷ both of which are not inherited from IH times, we shall find a striking correspondence in the distribution of forms between Hittite⁵⁸ and Indo-European. The former has in the 1. sing. *ug* nom. and *amug* acc. dat. loc., gradually also displacing *ug* as nom. The 2. sing. has *zig* and *tug* distributed in the same way, the 1. pl. *veš* and *anšaš*, and the 2. pl. has only *šumas* or *šumes* for nom. acc. dat. loc. In addition Hittite has the enclitic forms *-mu*, *-ta*, *-du*, *-naš*, and *-šmaš* for the acc. dat. of the four pronouns. It is an instance in which Hittite, barring recasting of forms by analogy, has been more conservative than any IE language.

The second noteworthy feature of the IE paradigms as reconstructed above is the total absence of all local cases. There is no trace of IE locatives, ablatives, or instrumentals, but only nominative, accusative, genitive, and dative. Apparently local relations, when the context was insufficient to indicate them without grammatical means, had to rely on prepositions as early as the IE period.

In the third place these paradigms are characterized by the fact that not only mere stems and stems with particles are the most characteristic feature of the declension, but there was no other declension at all. We have seen that **teye*, **tye*, **tyē*, **tē*, **te*, and **tū*, **tu* (2. pers.) and **seye*, **syē*, **se* and **sē*, **se* (reflex.) were merely ablaut variations of the same stem, that **eġ* and **(e)me* (1. sing.), **ye* or **yei* and **nōs*, **nos* (1. pl.), **iū* and **yōs*, **yos* (2. pl.), **ye* and **nō* (1. du.), and **iū* and **yōs*, **yos* (2. du.) were merely different stems, that **eġ-om*, **me-ne*, **me-ġhi*, **te-bhi*, **se-bhi*, **ns-(s)me*, and **us-(s)me* as well as **mo-i*, **to-i*, and **so-i* (possibly also **ye-i*) were stem-forms with added particles. The only possibility of a real inflectional ending was the *-s* of **nōs*, **nos* and **yōs*, **yos* or of **yeis* and **iūs*, and the *-i* of **yei*, and we have seen above that that is by no means a necessary or even a probable assumption. However, even if these should have really had the plural sign, it was still not a case ending, but a pl. sign indifferent to case meaning.

That these forms of IE personal pronouns, none of which had a case ending, properly speaking, but were merely stems or stems with parti-

⁵⁶ For these see Hrozný, op. cit. 100.

⁵⁷ Cf. Sturtevant, JAOS 47. 181 ff. for the origin of Hitt. ablatives in *z*. The *-med-* suggests Skt. *māt* abl., but the *d* is also found in Hittite instrumental forms, and therefore points rather to the interpretation of *māt* in I. 4.

⁵⁸ For the declension of Hitt. personal pronouns cf. Delaporte, *Elem. de la gram. Hitt.* 37 f.

cles, should have had any case meaning in the beginning,⁵⁹ is impossible. The development of these into a real declension was a gradual process of adaptation, and the only question is how far this process had gone in IE times. If the case usage attributed to them above had really already crystallized at that time, we would expect more reliable signs of this, e.g. that at least a beginning of the assimilation of the paradigms of personal pronouns to those of nouns and demonstratives had been made. The fact that all forms which show such assimilation belong to individual languages shows that in the IE period the distribution of these forms among the various cases could not have gone far. This conclusion is strengthened by traces of wider uses of many pronominal forms in some language or other, which are usually attributed to later change, e.g. the Skt. and Lith. use of **moi* and **toi* as acc. as well as gen. and dat. However, after once determining the fact that these forms originally could have had no case meaning at all, it will appear that many instances of this wider usage must have been survivals from the earlier period.

The clearest case is that of the pronoun 'thou.' Here one would suspect a priori that **tū*, **tu*, the weakest grade of **teye*, was not originally a nom., since only emphatic nominatives occur in the oldest languages. Now Hittite shows exactly the reverse distribution of stems: *zig* < **tē-g* is nom. and *tu-g* is acc. dat. Nor does Hittite stand alone with respect to the latter. Gr. Dor. *τὺ* is acc. as well as nom., so also Ir. *tū*, *tu-ssu*. Goth. *þus* dat. and *þuk* acc. come from **tū*, *tu*, and Skt. *tū-bhyam* dat. likewise. For Hittite *zig* as nom. again we have the parallel Osc. *tium* = **tē-om*. Nor does the plural keep its stems distinct. Hittite *šumaš*, *šumeš* is nom. as well as dat. acc. loc., and **χū* as acc. dat. is presupposed by OHG *iū*, *iuwih* etc. Contrariwise Lat. *vōs*, as *nōs* of the 1. pers., is used as nom. as well as acc. In the 1. pl. again Hittite *anšaš* acc. dat. loc. is found alongside of *veš* as nom. The use of Hittite *amug* and Ir. *mē* 'me' as nom. also is however clearly secondary.

Turning to the relation of the oblique cases among themselves, we find that the so-called accusatives **(e)mē*, **(e)me*, **tūē*, **tūe*, **ns(s)me*,

⁵⁹ It would hardly seem necessary to remark that the use of the same stem or word in the four 'grammatical' cases or cases of inner determination is not at all objectionable from the point of view of clearness. Cf. Wundt, *Sprachps.*² 2.84 ff., who shows how these cases can be understood everywhere from the context alone, and do not require formal characterization. In case of pronouns one need refer only to Skt. *naḥ* and *vaḥ* to show how little clearness is affected by the fact that these are used as acc., dat., and gen.

and **us(s)me* are presupposed in genitive use by the Greek forms like ἐμέο, σέο, ἡμέων, and ὑμέων. Conversely we find IE **seue*, otherwise genitive, as an acc. in Gr. ἐέ < **σεφε*, and similarly the Slavic genitives *mene*, *tebe*, and *sebe* also function as acc. The analogical transfer of genitives to acc. usage is not easy, and it is much more probable that misinterpreting these original accusatives as genitives was the starting point for the use of the gen. case in Slavic for the personal object rather than that the acc. use was the result of the latter.⁶⁰

To all these instances might be added,⁶¹ aside from the mentioned use of **moi*, **toi*, and **soi* as acc. in Skt. *mē* and *tē*, Lith. *mi*, *ti*, and *si*, although otherwise gen. and dat., also the Homeric use of Gr. *με* and *σε* as dat. as well as acc. At least this seems to me to be the only way of explaining the occasional elision (only apparent if this explanation is right) of the *oi* of *μοι* and *σοι*, though *oi* is not otherwise elided. For the facts see Monro, *Hom. Gram.*² 350.

A further support of the vagueness of the oldest case use of pronouns is the occurrence of certain analogies between cases which do not seem closely associated. Thus the *h* of Skt. *ahām* IE **eǵhom* for **eǵom* evidently came from the dative **me-ǵhi*, but this is plausible only if **me-ǵhi* was originally an emphatic form for any oblique case instead of being merely a dative. The case of Hittite *amug* giving its *u* to *ug* 'ego' is analogous and causes no misgivings simply because *amug* was acc. as well as dat. In Germanic the assumption that the nom. **iū* was at the basis of the dat. OHG *iū* is intelligible only when we see on the one hand that OSax. *iū* was acc. as well as dative, on the other that **iū* must have appeared in oblique cases as well as the nom.

The conclusion from all of these facts would seem plain. While some of these uncertainties of case usage may well be secondary,⁶² yet on the

⁶⁰ Above interpretation of the Slavic peculiarity of syntax receives confirmation from the fact that the construction first arose in the singular (*mene*, *tebe*, and *sebe* are all sing.), and because the earliest instance seems to be *kogo* 'cuius'. Naturally the construction would spread first from personal pronouns to those with variable gender. This explanation is essentially that of Meillet, *Recherches sur l'emploi du gén. acc. en vieux-slave*. Otherwise, but highly improbably, Berneker, *KZ* 37. 364 ff., and Thomson, *IF* 24.293 ff.

⁶¹ We should also not neglect the use of the same form in dual and plural sense, as **iū* 'ye' and, possibly, *ye* 'we' (p. 185). If **ye* and **yei(s)* have the same *y* as **yōs* and **yō* of the second person, there is a further problem apart from the rest. One would be loathe to assume responsibility for the statement that they are probable identical.

⁶² It lies in the nature of the case that almost every occurrence of a form in a case different from the one expected can be explained as due to analogy, and there-

whole they bear witness to an original state of affairs when even those few beginnings of definite case usage found in the above paradigms had not been established, and when the forces which later distributed these stem forms and stems with particles among the different cases had not yet become thoroughly effective, although a beginning may have been made here and there.

If we thus understand the status of the declension of personal pronouns in IE times, a flood of light is thrown upon their history in each language. We now know why the various pronominal paradigms often contain side by side forms which have displayed the utmost tenacity for thousands of years, and others of which we can find no trace in other languages or language groups. We know why some forms are common to so many languages, and still on the whole the dissimilarity rather than similarity of pronominal paradigms strikes us. There are not two periods in the history of personal pronouns, during the first of which analogy breaks up a complete and complicated paradigm of seven cases and three numbers, while during the second what remains is often stationary. Rather is the divergence of pronominal forms due to the way in which each language after receiving from IE times a few stem forms (sometimes with added particles) built up for itself a more or less complete paradigm with whatever means it possessed: adaptation of existing forms, new combinations with other particles, contamination of associated forms, and, perhaps most important of all, adoption of case endings of nouns and demonstrative pronouns. A re-examination of the history of personal pronouns of individual languages in this light promises greater success than before because the IE substratum now becomes clear, and we know where to look for possibilities as to the origin of new forms.

A final question occurs whether we can go more into detail as to the exact processes of this adaptation, and how far this had gone in IE times. Although this brings up many a problem which may be unanswer-

fore as being secondary. The peculiar instance of Hitt. *zig* and *tug*, which interchanged the expected forms and cannot therefore be explained in this way, is not likely to occur repeatedly. It is therefore probable that one's preconceived notions will insist on explaining every other instance as of secondary origin, in spite of rare associations sometimes involved, e.g. in case of Skt. *tú-bhyam*, supposedly with *u* from nom. **tu*. Aside from the fact that the ease of such transfer would indicate that one was not yet accustomed to rigid use of pronominal forms, I refer again to the statement that stem forms and stems with particles could not have had case values in the beginning, and that all these instances of using one case 'for another' should be judged in that light.

able, or at least is so for the present, we may see these forces working here and there. One of the earliest adaptations is the use of **eġ(om)* as nom. of 'I' as opposed to **mē*, **me* in the oblique cases. This is known to have its origin in the difference between the feeling for the self as acting and acted upon, as subject and in other relations, i.e. between the 'I' and the 'me.'⁶³ This difference is psychically so important that primitive man could not bring himself to using the same word of the self in the different rôles. This same difference would apply only in a lesser degree to the pl. 'we', since 'we' = 'I' + 'you' or 'I' + 'he', 'she', or 'they' instead of 'I' + 'I'. However the dominance of the 'I' in the combination may account for IE **uei* nom. as opposed to **nōs* in the oblique cases. Still, to ignore this difference, might happen more easily than in the case of 'I', hence Lat. *nōs* as nom. In the second person sing. we similarly find **tū*, **tu* nom. as opposed to **teye*, **tūē*, **tūe*, **tē*, **te* in the oblique cases, and in the pl. **iū(s)* opposed to **iōs*. Here, however, the motive is not so clear, and this accounts for the fact that the stem form of nom. and oblique cases are not so well differentiated as in the 1. person, and there may not have existed any difference at all in IE times (see above). At whatever time, however, it took place, it seems probable that e.g. **tū* and **tūē*, **iūs* and *iōs* were redistributed secondarily after the pattern 'I': 'me', 'we': 'us'.

A second factor which led to a redistribution of forms among different cases was emphasis. Since the IE ablaut was largely due to differences of accent, and therefore emphasis, we would expect the weak grades to be found in unemphasized situations. Undoubtedly there was a time e.g. when **nōs* was the accented form and **ns* or even **nos* the enclitic or proclitic form, and the use of Skt. *naḥ* as unemphatic may continue this difference. On the whole however IE differences of this kind have been leveled. Thus **tū*, **tu*, the weakest grade of **teue* 'te', is found where we expect it least, sc. in the nom. sing., where the pronoun was originally unexpressed unless emphatic, and where Hittite *zig* and Osc. *tiium* still show the expected stronger *e*-form.

In place of IE distribution of ablaut forms other means of emphasis must ordinarily be employed, sc. either secondary stress or addition of emphasizing particles. Thus **me-ghi*, **me-ne*, **ns(s)me* were more emphatic than the mere stem forms, and originally must have been indifferent to case usage except in so far as affected by emphasis. This would mean that on the whole emphatic forms would tend to gen. and dat. use

⁶³ Cf. Brugmann, op. cit. 381.

rather than acc.,⁶⁴ for these case relations were psychically more important than the latter, as is shown by the IE accentuation of case-endings. Cf. the paradigm Skt. *pā't* nom. *pā'd-am* acc., *padās* gen., *padé* dat. with Gr. *πούς*, *πόδα*, *ποδός*, *ποδί* (dat. loc.). Also the apparently original position of the genitive before its noun and of the dative before its verb, point the same way. It is therefore probable that emphatic forms will gravitate toward the gen. and dat., and unemphatic forms toward the accusative. Thus it may be a remnant of IE differences of emphasis that the strongest forms **teye* and **seye* function as genitives primarily, while **tyē*, **tye* and **syē*, **sye* tend to be used as accusatives. In the same way may be partially explained the use of forms with emphasizing particles in these cases, e.g. **me-ne* as gen., and of **me-ghi*, **te-bhi*, and **se-bhi* as datives. It may be added that this factor may easily be overvalued, for even accusatives may be emphasized in the same way as nominatives, i.e. for the stem meaning rather than case relation. Thus perhaps may be explained the peculiar combinations **ns-(s)me* and **us-(s)me*, where emphasizing particles are added to weak stems to form the acc. of 'we' and 'ye'. The weak grade became fixed in the more frequent unemphatic use, and the particle procured secondary emphasis.

Other influences which tended to limit the case usage of personal pronouns were accidental association with other forms. Thus **te-bhi* 'tibi' and **se-bhi* 'sibi' became datives probably in IE times because the nominal dat. pl. endings contain *bh*, and **me-ghi* 'mihi' in turn followed these. Or the Gr. *ἐμοί*, *μοι*, *σοί*, and *οἱ* became datives only, and gave up gen. and acc. use, because of the influence of the dative-locatives in *i*.

More complete answers to the question of the development of case meanings can be given only in the individual languages. For the IE the process could have been only in its merest beginning. The IE system of personal pronouns was essentially a group of stems and stems with particles which had not as yet become well differentiated in case usage.

⁶⁴ Since the nom. of personal pronouns was expressed only when emphatic, actually existing nominatives are tonic, but that is only a small fraction compared to the number of instances in which the verbal inflection takes care of the unemphasized personal subject.

BOOK REVIEWS

Hittite Studies, edited by George A. Barton. No. 1. Part 1: **A Hittite Manual for Beginners**. Part 2: **The Treaty of Mursilis with Kupanta-KAL** Transliterated and Translated with Vocabulary. Pp. xxxix + 85. By GEORGE A. BARTON. Paris: Guethner, 1928.

It is a pleasure to notice the first treatment of Hittite grammar in English. Its only predecessors in any language are Hrozný's pioneer work, *Die Sprache der Hethiter*, Leipzig, 1917; sketches of the language by Friedrich and by Forrer in *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 76. 160-73 and 203-15 (1922); and Delaporte's *Éléments de la Grammaire Hittite*, Paris, 1929, which was reviewed in *LANGUAGE* 5. 261-2. Barton's manuscript was in the hands of the printer long before Delaporte had finished his, and the English grammar would have appeared before the French if it had not been for delays in the printing. As a matter of fact Delaporte's grammar appeared in the spring of 1929, while Barton's book, in spite of the date on the title page, was not received in this country until the following autumn.

Such delays are peculiarly disastrous in the case of a young and rapidly advancing science like Hittitology. It was no part of our author's plan to undertake original researches in compiling his grammar; he intended merely to put the already accepted results of the science at the disposal of English-speaking students. That, of course, is precisely what we have needed for a long time. But the long interval between the compilation of the book and its publication brings it about that Barton's grammar was at many points out of date at the time of its appearance. Delaporte, on the other hand, being in closer touch with his printer, was able to include the results of grammatical studies published as late as the beginning of 1929.

The new book is the only one in any language which includes everything that the beginner will need for the first few weeks. Barton includes a transliterated text and a vocabulary. A cuneiform version of the same text is promised for the same series of studies, and one may hope that it will be published in such form that it may be bound in with the material here presented.

When we have the cuneiform text the sign list which Barton includes will be of service. It is a reproduction of the second part of Forrer's

sign list,¹ with supplements from the first part. We need an independent working over of this material, and no scholar is better fitted for such a task than Barton; but no doubt that would have involved too great a delay. It is unfortunate, however, that the order of the signs was not changed to accord with that of other sign lists, and that certain other matters were not made to harmonize with the use of all Hittitologists except Forrer.

E. H. STURTEVANT

Briefe von R. Rask an J. H. Halbertsma. Mit einem nordfriesischen Glossar von R. Rask. Pp. 77. By FRITZ BRAUN. Jena: Frommannsche Buchhandlung (Walter Biedermann) 1927. (Reprinted from *Dankesgabe für Albert Leitzmann*.)

The author begins by reminding us that the year 1927 marks the first centenary of the Frisian Historical, Antiquarian, and Linguistic Society (*Friesch Genootschap van Geschied-, Oudheid- en Taalkunde*), that learned society (flourishing to this day) having been founded on the 26th of September 1827. A prominent part in the affairs of the *Friesch Genootschap* was taken from the outset by the two brothers Halbertsma (Joost Hiddes and Eeltje; the former a Mennonite preacher and an accomplished scholar, the latter a physician, a gifted poet, and a popular author; the two are aptly called by Braun the Frisian brothers Grimm) and by Montanus de Haan Hetteema, next to J. H. Halbertsma probably the best known and most active participant in the revival, at the beginning of the nineteenth century, of Frisian studies. Among its honorary members we find in records of the Society dating from the very first year of its existence the two names (as quoted by Braun 5₁) of: 'R. Rask, Hoogleraar te Kopenhagen', and 'Jacob Grimm, Eerste Bibliothekaris te Cassel'.

Both J. H. Halbertsma and M. Hetteema having been for many years in personal contact (if only by correspondence and in exchange of printed books) with Rask, and Hetteema being the author also of a Dutch translation (published in 1832) of Rask's Frisian Grammar, there was every reason for counting on the possibility that traces of their mutual relations and, above all, letters written by Rask might have been preserved in the archives of the Society. So Braun betook himself to Leeuwarden, the capital of the Dutch province of Friesland and the seat, at

¹ Published in *Die Boghazköi-Texte in Umschrift, Erster Band: Einleitung, Die Keilschrift von Boghazköi*, Leipzig, 1922 (41 *Wissenschaftliche Veröffentlichung der Deutschen Orient-Gesellschaft*).

the same time, of its Provincial Library and of the 'Friesch Genootschap'. As regards Hettema, he learned, much to his disappointment, that the manuscripts and literary correspondence, left by him, had been destroyed by members of his family. He was more lucky in his efforts to trace the correspondence between Rask and Halbertsma. For he succeeded in finding, with the aid of the head librarian of the Provincial Library, Dr. G. A. Wumkes, two interesting letters of Rask's, written in English, and dated Copenhagen, April 21st and June 25th 1830. These two letters are reprinted, with explanatory notes, on pages 18-26 of his treatise. They were written a few years after the publication of Rask's Frisian Grammar (*Frisisk Sproglære*, Copenhagen, 1825) and at a time when he was revising and editing the MS., left by N. Outzen, of a North Frisian dictionary. We learn in the former letter, among other things, of the difficulties under which he was laboring when seeing Outzen's work through the press. Nine or ten sheets, however, having been printed already, he is hoping that it will be ready in the course of the summer. As a matter of fact, Rask did not live to see the work finished. The 'Glossarium der friesischen Sprache besonders in nordfriesischer Mundart' appeared in 1837, five years after Rask's premature death. The second letter dwells especially on certain details of Frisian spelling and accentuation having a bearing on the method of editing ancient manuscripts as well as on modern spelling reform. Rask's advice to abandon the intricate spelling of modern Frisian dialects and to return instead to the 'noble simplicity' of the medieval manuscripts, no doubt is fundamentally sound. There remains the question, however, whether this principle should be adhered to, e.g., with regard to the marking of vowel quantities and accentuation, and whether we should give the preference generally, after the custom of Anglo-Saxon and Icelandic scribes, to the use of the acute accent instead of the circumflex. In this respect Rask was at odds with many of his contemporaries, notably Jac. Grimm,¹ and his plea in favor of the acute accent probably amounts to advocating a lost cause.

The last part (27-77) of the treatise consists of a concise dictionary of the North Frisian dialect with Danish and Modern German interpreta-

¹ Concerning J. Grimm, Braun here (23₂₅) merely refers to the first volume (*1822) of his *Deutsche Grammatik*. Yet the points at issue were argued more thoroughly between the two scholars in Grimm's review of Rask's *Frisisk Sproglære* in *Gött. Gel. Anz.* 1826. 89-90, reprinted in his *Kleinere Schriften* 4. 365 f. (1869), and in Rask's reply, reprinted from 'Hermod' in his *Samlede Afhandlinger* 3. 208-10 (1838).

tions, compiled by R. Rask nearly a century ago and to all appearance intended by him to serve as the nucleus of a complete North Frisian dictionary. The MS., from which it is edited here for the first time, belongs to the literary remains of Rask, donated after his death by his brother Hans Kristian Rask to the Royal Library of Copenhagen.² As to his aim and his mode of procedure the editor states (15):

Der Tod hat es verhindert, dass Rask seinem zum Druck bestimmten Wörterbüchlein die letzte Abrundung gegeben hat. Es war daher die Aufgabe des Bearbeiters, aus einigen fertigen Wörterbuchartikeln die von Rask mutmasslich vorgesehene Form seiner Arbeit zu erschliessen und nach diesem Vorbild das Ganze zu gestalten.

No better plan, in our opinion, could have been adopted by Braun for his edition. A mere reprint of the MS. with all its imperfections, of course, would have been a less laborious task, but would have rendered the edition less useful for the modern reader and would have served no real purpose. Nor is there any danger of holding Rask responsible for any material supplied by Braun, because the editor has conscientiously bracketed all of his additions, even in cases where they consist of but a single letter.

There is but one feature of Rask's MS. that we regret to see effaced in Braun's edition, viz. the distinction made by Rask between the letters ϕ and δ . While these two letters are generally looked at as mere graphic variants of one and the same vowel sound, Rask makes it a point throughout, in his various grammars (Icelandic, Frisian, Danish) as well as, e.g., in a letter to P. E. Müller (*Saml. Afhandl.* 2. 263)³ to use the two signs alongside of each other in order to designate a difference in articulation. In his *Danish Grammar for the use of Englishmen* (Copenhagen 1830), e.g., he gives (2) the two last letters of the Danish alphabet as ϕ (pronounced like 'French *eu fermé* in *peu*') and δ (like 'French *eu ouvert* in *veuve*, *œu* in *cœur*, *œuf*'). He adds (4) the following comment:

ϕ and δ are commonly confounded, so that ϕ is used for both sounds in books printed in the Gothic type, δ in those in the Roman character. The distinction proposed by Højsgård, shall be adopted here, as it will greatly assist the student's memory in recollecting the genuine pronunciation.

² See the donor's itemized list of these mss. (altogether 122 items, not counting Rask's copies of Icelandic mss. incorporated with the Arne-Magnæan Collection) in *Samlede Afhandlinge af R. K. Rask* 3. 26-34 (København 1838). The North Frisian vocabulary is listed under nr. 32 as 'Udkast til en frisisk-dansk Ordbog; temmelig fuldstændig'. (Cf. Braun 14₁₇).

³ Cp. also page 19 of the first letter to Halbertsma referred to above.

Obviously we are concerned with a pet notion of Rask's and a distinction which testifies to his independence and his keen observation in matters phonetic. Nor is it entirely the editor's fault that a differentiation on which Rask always laid so much stress, is neglected in his edition of this vocabulary. For he remarks (16): 'Den Buchstaben *ö* und durchstrichenen dänisches *ö* hat Rask im Gegensatz zu seiner Vorlage geschieden: diese Differenzierung konnte aber hier nicht berücksichtigt werden, da die Type der Druckerei fehlte.'

Instead of dwelling any longer on the texts brought to light by Braun I wish to add a few references and remarks to the text (5-17) and especially the notes of his 'Einleitung'. (1) Many of the biographical dictionaries and other sources quoted by Braun concerning J. H. Halbertsma and R. Rask being hard of access or entirely out of reach outside of Friesland and the Scandinavian countries, he might have referred also to the well known work by Th. Siebs, *Die Englisch-Friesische Sprache* I. (Halle 1889) on account of the extensive bibliography it contains (348-93) of the various Frisian dialects down to the year 1889.

(2) Among Halbertsma's many writings is of interest to students of Anglo-Saxon especially a treatise entitled 'Ancient and Modern Frisie compared with Anglo-Saxon', written in 1834 for Bosworth's introduction to his *Dictionary of the Anglo-Saxon Language* (London 1838). Ten years later (London 1848) a second revised edition of the Introduction to his Dictionary was issued by Bosworth in a separate volume entitled *The Origin of the English, Germanic and Scandinavian Languages and Nations*. Halbertsma's essay is here reprinted on pages 35-80. (This reprint is not quoted in Siebs' bibliography, whereas the original edition is duly listed on p. 350). It is to be regretted that no more recent edition could have been issued of this Introduction, whereas the Dictionary itself has been brought up to date by the indefatigable labor of Prof. T. Northcote Toller.

(3) In connection with the important biography of Rask (*Bidrag til Forfatterens Levnet*), contributed to the first volume of the *Samlede . . . Afhandlinger af K. R. Rask* (København 1834) by N. M. Petersen, the reprint of this biography in the latter's *Samlede Afhandlinger* Bd. I (ib. 1870) should not have been left unmentioned, considering that the volume containing the original edition is long since out of print. In addition it might have been worth while to mention explicitly the interesting sketch of Rask's life and works written on the occasion of the hundredth anniversary of his birthday for a Danish periodical by Vilh. Thomsen and translated into German by C. Äpel in Bezzenberger's *Beiträge* 14. 317-330 (1889).

(4) In 7₁₀ a brief account is given 'ohne Anspruch auf Vollständigkeit zu erheben' of Rask's correspondence. Here the quotation 'Rask, Samlede. . . . Afhandler, København 1838, III. Fortale, pp. 36 ff.' is certainly erroneous. Maybe a reference was intended to the following statement (here translated from Danish) of H. K. Rask in *Fortale* 3. 3f.:

The copies of his (i.e. Rasmus K. Rask's) own (printed) works which were provided with additions or corrections have been made over to the University Library, to which in due time will also be left all those of his papers, in my possession, which may be regarded as containing something important. Among other things, I own a number of letters to his most intimate early friends with whom he shared his whole intellectual life and the fruits of his studies; as such I would mention especially Magistrate (*Amtmand*) B. Thorsteinsson in Iceland and Councillor of State Johnsson at Middelfort. With P. E. Müller he also corresponded much especially during his journey (to India), but these letters, of which I also own some not yet printed,⁴ do not display the same candor and enthusiasm as those written to his early friends; moreover, the letters to Thorsteinsson concern especially his stay in Iceland, of which only little is known. In addition, others have furnished me with materials concerning his life which will either be used by myself or be left to the University Library.

In connection with the *Briefwechsel der Gebrüder Grimm mit Nordischen Gelehrten*, hg. von Ernst Schmidt (Berlin 1885) two letters of the Brothers Grimm to Rask, edited as an aftermath to that collection, in different years and in somewhat out of the way places, might have been referred to. First, a letter by Jac. Grimm., dated Nov. 24, 1823, edited by E. Steinmeyer *Anz. f. dt. Alt.* 24. 221-23 (1898); secondly, one written by Wilhelm Grimm on Febr. 11, 1824, edited (together with a letter from Jac. Grimm to Ledebur) by Halldór Hermansson in the *Journal of Engl. and Germanic Phil.* 17. 79-81 (1918).

(5) A noteworthy feature of Braun's studies is his perusal in the Royal Library of Copenhagen of the two small MS. volumes of Rask's diaries. As we learn from his description (8 f.) of the MS. the entries cover the time from Oct. 25, 1816 to Sept. 23, 1832; the first vol. ending with an account, dated Mai 5, 1823, of his arrival (back from his fruitful journey to East India) at Copenhagen, where he called on 'Nyerup, Müller, Larsen' and moved in at Nyerup's; and the second volume beginning with a similar entry of the same date. With reference to the names Müller and Larsen we find in Note 18 the following comment: 'Die Klärung dieser beiden Beziehungen muss hier hintangestellt werden.'

⁴ *utrykte* 'unprinted', as distinguished from those printed in Rask's *Saml. Afhandl.* 2. 261-329 (København, 1836).

So viel scheint festzustehen, das es (sich) nicht um G. H. W. Müller handelt, vermutlich aber ist P. E. Müller gemeint.' Why here 'scheint' und "vermutlich"? Whom else could Rask have meant in this connection by Müller than his lifelong patron and friend Peter Erasmus Müller, the famous editor of the *Sagabibliotek*, the recipient of many substantial letters of his during his journey to India, and the one to whom he dedicated (in 1825) his Frisian Grammar, calling him '*min Velgører og akademiske Lærer*'. On his return to Copenhagen after an absence of fully five and a half years (he had left by vessel on Oct. 25, 1816) Rask naturally went to call first on those of his friends with whom he had exchanged letters during these years. While Nyerup and Müller were prominent scholars with whom he shared his literary interests, his relations to Larsen obviously were of a different nature. In a letter to P. E. Müller, dated 'Ispahan den 24 Maj 1820' Rask refers to him (Saml. Afh. 2. 309) as '*min Kommiss(ionær) i Kjøbenhavn Hr. Larsen*'. There is, moreover, at least one letter of Rask's to him, dated 'Bombay den 16 Nov. 1820', and printed (among Rask's letters to P. E. Müller) Saml. Afh. 2. 313 f. from which we may gather that he belonged to Rask's intimate friends. For Rask addresses him as '*Kære Larsen!*' and signs '*Din evig hengivne R. Rask.*' Excepting a few lines, in which Rask mentions that he is swimming nowadays up to the ears in Zend and Pehlevi, the letter deals exclusively with personal matters so as to include, e.g., a message to members of Rask's family. Under the circumstances we cannot be sure that he was a scholar by profession. As contrasted with Nyerup and Müller, who were both Rask's elders,⁵ we probably must count Larsen among the friends of his youth.

(6) We would suggest to substitute (12₄₂) the word '*sicher*' or '*zweifellos*' for '*wohl*' ('*Es ist wohl [mit Tegnagel] der auf dem Titelblatt von Rasks Frisisk Sproglære genannte Tegnagel gemeint*'). Or would Braun want to count with the possibility that there were at Copenhagen in Rask's time two rival printers, one called 'Tegnagel' (the way the name is spelt twice by Rask in his Diaries; see Braun 12, under Aug. 27 and Dec. 6, 1824), the other 'Tengnagel'; that both had an eye on Rask's Frisian Grammar, and that the former received the contract and sent out the proofsheets to the author, whereas the latter was privileged to provide the title page with his imprint?

(7) The date of publication of Mieris' *Groot Charterboek* is 1753-6, not 1703-6 as given 21₁₈.

⁵ The *Symbolæ ad Literaturam Teutonicam Antiquiorem*, by which Nyerup is chiefly remembered among scholars, appeared in the year in which Rask was born.

Let me repeat, in conclusion, that Braun is entitled to our sincere thanks, whether we look at his study as an apt memorial to two great Frisian scholars or as a valuable contribution to the lexicography of North Frisian.

HERMANN COLLITZ

Grundzüge der englischen Verswissenschaft. Pp. 98. By E. W. SCRIPTURE. Marburg: N. G. Elwert'sche Verlagsbuchhandlung, 1929.

Professor Scripture is and has long been greatly annoyed by the doctrines of those who expound the so-called science of metrics. In the little volume under review he has offered 'the first systematic assembling of the facts' of a new science of verse, which is based upon 'precise registration and microscopic measurement' after the graphic method of the experimental phonetician. Most of the material presented has been published elsewhere and the author's methods are adequately known from his booklet: *Anwendung der graphischen Methode auf Sprache und Gesang*, Leipzig, 1927.

The linguist is indeed interested in the question of the origins of verse forms, but precisely that problem which interests him most receives no elucidation in the present book: 'Die verschiedenen Gedankenarten und Gemütsbewegungen verbinden sich wahrscheinlich mehr oder minder fest mit bestimmten rhythmischen Formen u.s.w. aber darüber weiss man vorläufig nichts' (10). That poets in general arrive at their verse forms intuitively and without conscious predetermination is a conclusion obvious to everyone, save perhaps those metricists whom Professor Scripture is engaged in belaboring. That poets never consciously write a line in accordance with a determined pattern (9) is a conclusion justified neither by the evidence submitted nor by common experience. That the intuitive processes of the poets are related to their past experiences is an acceptable thesis, but that *Mother Goose* has had so large a share in forming these processes as our author believes, may be doubted, at least in the case of many a younger poet.

Professor Scripture is an ardent advocate of the instrumental method of speech investigation. This ardor leads him to make statements as to the capacity of the human senses for observation which are misleading.

Schon in bezug auf die Zahl der betonten Strecken und die Lagen der Zentroide versagt das Gehör. Selbst nach jahrzehntelanger Erfahrung mit Verskurven kann man sich in dieser Beziehung nicht auf das Ohr verlassen. Die meisten Bestimmungen hierüber mittels des Ohres sind Irrtümer. Der Grund ist einleuchtend. Der gesprochene Vers fliesst so schnell vorbei, dass das Ohr unmöglich die feinsten Einzelheiten bestimmen kann. (25).

Eine solche Pause wird eine Zäsur genannt. Die in einem konkreten Fall stattfindenden Einteilungen—also die Lagen der Zäsuren—sind in der registrierten Kurven festzustellen. Wenn keine Kurve vorliegt, ist die Einteilung nur eine vermutliche (29).

The obvious objection to these statements is that they ignore the fact that any given line of verse may be repeated by the subject with whom the phonetician is at work and that the investigator who uses no instruments cannot be denied the right to conduct his investigations under the conditions of an experiment, *i.e.* under control. Any one with sound ears can tell that there are five stress-centres in Hamlet's line: '*To be or not to be, that is the question.*' He can also tell with adequate accuracy which are the strong vowels. A trained ear can observe the high pitch centres in such a line and also do pretty well with the question of relative duration. One can also without undue uncertainty ascertain where a caesura occurs. Your reviewer is a believer in the use of the instrument in phonetic investigations, but he cannot subscribe to such radical statements as those quoted.

Another feature of Professor Scripture's championship of the instrumental method is his conviction that knowledge can only be properly expressed in mathematical formulae. (*Vide* Lord Kelvin's famous dictum.) Your reviewer suspects that there are some things about which, when one expresses them in numbers, one is in a fair way to know nothing. Certainly in Professor Scripture's formulae for Hamlet's line there is but one factor which cannot with greater lucidity and less labor be expressed in words. That factor is ' q = der rhythmische Schlag', which is obtained by dividing the number of strong vowels (S) by the number of weak vowels (W) in a line. Since our author finds two strong vowels in the word 'question' in our line from Hamlet this factor is given as ' $q = 6:5$ '. The usefulness of this procedure is not made clear in the present volume.

It may be assumed that linguists are familiar with Professor Scripture's views as to 'Die Silbigkeit und die Silbe', cf. *Arch. f. d. Stud. d. neueren Sprachen* 152. 74 (1927), namely, that there is physically no such thing as a syllable, that what we apprehend as such is entirely a matter of the auditory impressions. This is distinctly a question which is open to further discussion, but fortunately it seems to be of no importance to our author's verse theories. 'Für das Empfinden des Verses ist die Silbigkeit—also die Anzahl der Vokale—ein massgebender Faktor' (26).

The chapters devoted to the classification of various types of verse

form are of interest primarily for the terminology employed. Our author has given a logical and systematic arrangement of the material this terminology describes, although this results in a terrifying array of very strange looking words, the practical utility of which might be questioned.

The chapter entitled 'Fehler der modernen Metrik' is a critique of some actual instances of arid pedantry. The conclusion: 'Die ganze moderne Metrik ist tatsächlich "a fantastic fabric of fancy without the faintest foundation in fact"', is indicative of the tenor of this critique. There is little of interest to the linguist in these pages.

There follow chapters on Shakespeare's blank verse, on the blank verse of Marlow, Milton, and G. B. Shaw, on the verse form in *Mother Goose*, and on the alliterative verse of Old and Middle English. The author sums up his conclusions at the end of each chapter. Of interest is his statement (89) concerning Old English: 'Nur in den 26 Zeilen des *Sieges bei Brunanburch* und in Caedmons metrischen Werken kann eine weitere Einteilung in Halbzeilen nach demselben Prinzip gemacht werden. Sonst entbehrt eine systematische Einteilung in Halbzeilen jeder Berechtigung.'

Professor Scripture's most interesting experimental problem in this study of verse form is that of locating the centres of energy (Zentroide) within the verse. His method is comparatively simple. He tabulates the factors of precision of enunciation, strength, duration, and pitch of sound. Then he estimates (13, Schätzung) from these facts the location of the centres of energy in the flow of speech. This question of speech-energy is one of the most intricate which confront the phonetician. It is very doubtful that it can be dealt with as our author seeks to do—solely from the examination of the stream of speech as this emanates from the mouth. It is certain that it cannot be measured 'microscopically' as yet. For instance, it is impossible to *measure* the precision of enunciation. Consider the sentence used as an illustration: Hamlet's 'To be or not to be, that is the question.' How can one determine whether the *t* of *not* is more precisely articulated than the *e* of *be*? And how can any inference be drawn as to the relative quantum of speech-energy involved in a precise utterance of *t* and a precise utterance of *e*? Again, there is no process for measuring absolutely the strength of a sound. We have the audiometer method, but this is purely acoustic, wholly relative in the values it gives, and it shows nothing with respect to the relative energy involved in the production of *different* sounds. Professor Scripture's method (12) of drawing conclusions as

to strength of sounds from the height of his curves is entirely unsatisfactory. It gives no accurate information as to the amount of energy expended by the speaker. Duration of sound can be measured accurately and it is a fair inference that it requires more energy to maintain a given sound 0.5 sec. than 0.1 sec., if there are no other factors involved in the problem. However, in the stream of speech it may, upon occasion, involve less work, *i.e.* the expenditure of less energy, to prolong a given sound than to stop it (cf. the progressive assimilation of sounds). In the present instance it is conceivable that Professor Scripture's subject found it easier to prolong the *e* of his second *be*, than to stop it, pause, and then begin again with *that*. The reason for its prolongation is certainly to be sought in the *suspension* of physical movement during a moment of reflection. The difficulty is that one cannot measure this factor of speech-energy. Surely, however, no one will hold that the comparison of the duration of a stop like *t*, with the duration of a vowel like *a*, gives us any reliable information as to the relative amount of energy expended respectively in producing the two sounds. Finally the factor of pitch is not a reliable index of the quantum of energy involved in the utterance of *different* sounds. It is true that we commonly speak stressed vowels at a somewhat higher pitch than unstressed ones, but the distinctions are entirely relative and are influenced by other factors than that of energy.

What, then, of our author's results? He tabulates these four factors of precision, strength, duration, and pitch and from them he estimates the location of his Zentroide. He finds that in Hamlet's line there are five such centres. His subject read the word 'question' apparently with rising intonation and some stress on the second syllable. Professor Scripture regards both vowels of this word as strong and places his centre of energy in the group *ti*. The other centres he locates (1) in the *e* of the first *be*, (2) in the *t* of *not*, (3) in the *e* of the second *be*, (4) in the *t* of *that*. These findings would be very interesting if they could be regarded as facts. Your reviewer feels, however, that the evidence upon which and the method by which they were arrived at render them subject to grave doubt. He would prefer to regard the prominence of the consonants in Professor Scripture's centres 2 and 4 as due to their function as arresting consonants in strong syllables. He would see the major expenditure of energy in each case in the syllable thrust reflected in the stress upon the vowels preceding these consonants. The group *ti* of the centre 5 (question) he regards as releasing in its function and

would concede the possibility that it may have been within the centre of energy.

The problem here involved is one of the most fascinating and fruitful problems before the phonetician. If we can devise a method for establishing and for measuring such centres of energy as Professor Scripture describes we shall most certainly learn a great deal about the nature of speech-rhythm.

R-M. S. HEFFNER

NOTES AND PERSONALIA

THE LINGUISTIC INSTITUTE will hold its Third Session at the College of the City of New York, July 7 to August 15, 1930, as was announced in *Bulletin No. 5*, which was sent out with the March issue of *LANGUAGE*. Since that *Bulletin* went to press, two additional lectureships have been established: the LUDWIG VOGELSTEIN LECTURESHIP IN SEMITIC LANGUAGES, and the ALBERT BLUM LECTURESHIP. The first Vogelstein Lecturer is Professor Frank R. Blake, whose courses were announced and described in the *Bulletin*. The Blum Lectureship is open to French scholars without restriction as to subject; the first incumbent is Professor Jules Marouzeau, of the Sorbonne, editor of the *Revue des Études Latines* and of *L'Année Philologique*, who will offer a course, conducted in French, on the following subject:

LA LANGUE ET LE STYLE LATINS: I. Les sons du latin. Nature, évolution, tendances. Leur qualité, leur valeur expressive. Accent, quantité, et intonation. II. Les mots. Formation et évolution. Les vicissitudes du vocabulaire latin. Sens, emploi, qualité des mots. Mots vides et mots pleins, intellectuels et affectifs. Doublets et synonymes. III. La phrase. Diverses formes de l'énoncé: groupe, proposition, période. Phrase analytique et phrase synthétique, phrase inorganique et phrase rythmique. Ordre des mots. IV. Le vers. Rapports de la phrase et du vers. Types et clichés. Adaptation des sons et des mots à la forme métrique, rythmique, mélodique. V. Vue d'ensemble sur le développement du latin considéré comme 'Kunstsprache'.

THE HONORARY MEMBERS elected at the Cleveland meeting have accepted election. The following extracts are taken from their letters to the Secretary of the Society:

Giessen, den 19. Jan. 1930. Heute morgen habe ich Ihren Brief erhalten, in der Sie mir mitteilen, dass ich von der Linguistic Society zum Ehrenmitglied gewählt bin. Ich bin diese Ehrung ausserordentlich erfreut und spreche der Gesellschaft meinen aufrichtigen Dank aus. Ich nehme die Ehre natürlich an, und hoffe meinerseits noch einiges für die Sprachwissenschaft Wertvolle veröffentlichen zu können.—
H. HIRT.

Nijmegen, Jan. 20th, 1930. My election to Honorary Membership of the Linguistic Society of America was a very agreeable surprise to me. I consider it a great honor and accept it with gratitude.—C. C. UHLENBECK.

Copenhagen, 23-I-1930. With the most cordial thankfulness I accept the election to Honorary Membership of the Linguistic Society of America, and I thank you for kindly informing me of the election. I have learned very much from the works of American linguists, most of whom are still alive and members of the Linguistic Society of America. I therefore feel greatly honored in being elected a member of their Society.—HOLGER PEDERSEN.

THE VEDIC VARIANTS, a series of volumes by the late Professor Maurice Bloomfield and Professor Franklin Edgerton, promises shortly to become a reality. At the Cleveland meeting, in December 1929, the LINGUISTIC SOCIETY appropriated \$200 toward the expense of publishing the first volume; and now the American Council of Learned Societies has granted a subvention of \$1500 for the same purpose, which makes possible the volume. An account of the plan and the importance of these studies is to be found in LANGUAGE 5.129-33. The Treasurer of the Linguistic Society will serve as Business Manager of the series.

The first volume will deal with the verb, and will consist of about 400 pages, bound in heavy green buckram. As a special publication issued with outside subvention (see the Constitution of the Society, II, 10, in LANGUAGE 3.66), it cannot be supplied to members and subscribers of the Society in return for the annual dues; but because of the subvention granted by the Society it will be supplied to them at a special price, slightly above the cost of manufacture. Circulars giving the details have gone out before the appearance of this issue of LANGUAGE.

AN HONORARIUM of about two dollars per printed page will be given for book reviews of a critical and constructive nature, appearing in LANGUAGE from September 1930 onwards. Such reviews must be written by members of the Society in good standing, and may be offered by the writers or invited by the Editor; but in any instance the Editor reserves the right to accept or reject the reviews, or to request that they be amplified or shortened. One page of LANGUAGE amounts to about five hundred words. Payment will be made promptly after the printing of the reviews.

There will be no change in the present policy of printing brief descriptive reviews of recent linguistic works; but the honorarium will be given only for reviews of a distinctly critical nature, for the funds available for the purpose will be limited to a fixed amount annually, agreed upon between the Editor and the Treasurer.

PROFESSOR BRUNO LIEBICH requests the printing of the following note:

In the interesting and instructive review of *Konkordanz Panini-Candra*, written by Professor Leonard Bloomfield, *LANGUAGE* 5. 267 ff., the author is blamed for having insufficiently cited a former article of his own: 'one needs at least *Orientalische Bibliographie* (Berlin 1888 ff.) to learn where the article appeared. Such references, not uncommon among writers on Sanskrit grammar, create an unnecessary hardship.' The concordance is intended to facilitate the comparison of Panini's and Candra's works and cannot be used without having at hand the *Aṣṭādhyāyī* and *Kāśikā* on one side, and the two editions of Candra, without and with commentary, on the other. Since in the last named book this same article is cited in full on page xii of the preface, a full repetition in this place was deemed unnecessary and might have been taken as due to an author's vanity.

IN *LANGUAGE* MONOGRAPH No. 4, *The Germanic Case of Comparison*, by George William Small after *neodor* (100.30) insert: *swyǵlicor*, *swiǵor*. Nine slips in proof-reading have also been noted; but, as all are self-correcting, space in *LANGUAGE* cannot be given to setting them forth in detail.

S. L. MILLARD ROSENBERG, Associate Professor of Spanish and Chairman of the Department at the University of California at Los Angeles, has been appointed to represent the LINGUISTIC SOCIETY OF AMERICA at the Semi-Centennial of the University of Southern California, in response to an invitation extended by the Board of Trustees, the President, and the Faculties of that University. The Semi-Centennial will be celebrated on June 4 to 6, 1930, at Los Angeles.

SUBSEQUENT TO THE LAST PUBLISHED LIST OF NEW MEMBERS, and up to March 20, 1930, the following new members were received into the Society:

Prof. Henry S. Alexander, Queen's College, Kingston, Canada.
(English).

- Mr. Fred S. Braunlin, 704 Wager St., Columbus, Ohio. (Graduate student in Germanic Langs., Ohio State Univ.)
- Prof. Thomas K. Brown Jr., 226 Dickinson Ave., Swarthmore, Pa. (German, Univ. of Pennsylvania.)
- Dr. Arthur P. Coleman, Columbia Univ., New York City. (Slavonic Langs.)
- Dr. Joseph T. Curtiss, 131 Cottage St., New Haven, Conn. (English, Yale Univ.)
- Dr. Stefán Einarsson, 2417 Maryland Ave., Baltimore, Md. (English, Johns Hopkins Univ.)
- Miss Mary E. Fulton, Western Penna. Institution for the Deaf, Englewood, Pittsburgh, Pa.
- Prof. John L. Gerig, Columbia Univ., New York City. (Celtic and Romance Langs.)
- Mrs. José Gibert (Catherine Crates), Colorado State Teachers College, Greeley, Colo. (Assoc. Prof., Foreign Langs.)
- Prof. A. P. Hamilton, Millsaps College, Jackson, Miss. (Greek)
- Prof. Walter W. Gustafson, Upsala College, East Orange, N. J. (English)
- Prof. Herbert Pierrepont Houghton, Carleton Faculty Club, Northfield, Minn. (Greek)
- Mr. John Kepke, 224 Hancock St., Brooklyn, N. Y. (Germanic Langs.)
- Miss Marie K. Mason, Ohio State School for the Deaf, 520 East Town St., Columbus, Ohio. (Rhythm and Acoustics)
- Mrs. Helen Pope, Post Hall, 510 State St., Brooklyn, N. Y. (Greek and Latin, Hunter College)
- Prof. Dr. C. Wessely, Karolinengasse 3, Wien 4/II, Austria.
- Mr. A. R. Wheelock, Swarthmore Preparatory School, Swarthmore, Pa. (Latin)

BOOKS RECEIVED

Under this heading will be acknowledged such works as seem to bear on the advancement of the scientific study of language.

The publicity thus given is regarded as a full return for the presentation of the work. Under no circumstances is it possible to comply with the requests being made by certain publishers for the return of books not reviewed quickly.

Reviews will be published as circumstances permit. Copies of them will be sent to the publishers of the works reviewed.

For further bibliographic information consult the annual list of Exchanges.

Acta Philologica Scandinavica 4. 273-364 (1929); 5. 1-96 (1930).

Altgermanisches. By H. JACOBSON. (*Z. f. deutsches Altert. u. d. Lit.* 66. 217-46-1929).

American Speech 5. 181-258 (1930).

Archiv für das Studium der neueren Sprachen und Literaturen 156. 161-320 (1929).

Archiv für Orientforschung 5. 199-268 (1929).

Arkiv för Nordisk Filologi 45. 305-88 (1929).

Ausdrucksvertärkung; Untersuchungen zur etymologischen Verstärkung und zum Gebrauch der Steigerungsadverbia im Balto-Slavischen und in anderen indogermanischen Sprachen. Pp. viii + 156. By ERICH HOFMANN. Göttingen: Vandenhoeck & Ruprecht, 1930. (Supplement to *Kuhn's Zeitschrift* No. 9).

Biblica 10. 377-486, 57*-100* (1929).

Bibliotheca Indica; a collection of oriental works published by the ASIATIC SOCIETY OF BENGAL. Catalogue of works relating to Indian culture. Pp. 48. Catalogue of works relating to Islamic culture. Pp. 24. Calcutta: 1929.

Bolletino delle Pubblicazioni Italiane Nos. 340-2 (1929).

Bulletin Hispanique 31. 181-388 (1929).

La Cultura 8. 577-768 (1929); 9. 1-160 (1930).

Diccionari Catala-Valencia-Balear 1. 625-88. By ANTONI M.^A ALCOVER. Barcelona: Llibreria Verdager, 1929.

Duodecim prophetarum minorum versionis Achmimicae codex Rainerianus. Pp. 308, and 7 Plates. Edited by CARL WESSELY. (*Studien zur Palaeographie und Papyruskunde* No. 16). Leipzig: 1915.

Englische Studien 64. 177-481 (1929); 65 1-176 (1930).

English Studies 12. 1-48 (1930).

Gnomon 6. 1-112, Bibl. Beilage No. 1 (1930).

Hespéris; Archives Berbères et Bulletin de l'Institut des Hautes Études Marocaines 8. 263-515 (1928).

Die hethitische Sprache, als Problem der indogermanischen, kaukasischen und allgemeinen Sprachwissenschaft. Pp. 22. By M. J. NEMIROVSKI. Vladikavkas: 1929. (Russian).

Hispania 13. 1-172 (1930).

Hugo Schuchardt; Hugo Schuchardts schöpferischer Weg und seine Forschungen auf dem Gebiete der kaukasischen Sprachwissenschaft. Pp. 12. By M. J. NEMIROVSKI. Vladikavkas: 1929. (Russian).

Journal and Proceedings of the Asiatic Society of Bengal NS 24. 177-499, and Numismatic Supplement No. 41 (1929).

The Journal of the Polynesian Society 38. 241-96, Supplement 71-99 (1929).

Leeuvense Bijdragen 21. 33-72 (1929).

Man 30. 1-44 (1930).

Mélanges d'Archéologie Anatolienne. By G. DE JERPHANION. (Mélanges de l'Université Saint-Joseph 13. 1-332, Plates 1-119). Beyrouth: Imprimerie Catholique, 1928.

The Modern Language Forum 15. No. 1 (1930).

Modern Philology 27. 257-384 (1930).

Le Muséon; Revue d'Études Orientales 42. 129-335 (1929).

Namn och Bygd 17. 1-48; 193-288 (1929).

Neuphilologische Monatsschrift; Zeitschrift für das Studium der angelsächsischen und romanischen Kulturen 1. 65-128. Edited by WALTER HÜBNER. Leipzig: Quelle & Meyer, 1930.

The Participle in Wycliffe with Especial Reference to his Original English Works. Pp. 68. By ANNIE S. IRVINE. (Univ. of Texas *Studies in English* No. 9, 1929).

Philological Quarterly 9. 1-96 (1930).

Philologus 85. 113-228 (1930).

Portucale 2. 385-448 (1930).

The Pronunciation of Japanese. By M. G. MORI. With an Introduction by SANKI ICHIKAWA. Pp. 311. Tokyo: The Herald-Sha, 1929.

Review of Mahlow: **Neue Wege durch die gr. Sprache u. Dichtung**. By F. SPECHT. [*Gnomon* 5. 665-70 (1929)].

Revue Hispanique 67, nos. 171-2 (1929).

Ricerche Religiose 6. 1-96 (1930).

Rivista Indo-Greco-Italica 13, nos. 3-4 (1930).

Slavia 8. 449-688 (1929).

Die Steigerung des neuenglischen Eigenschaftswortes im 17. und 18. Jahrhundert mit Ausblicken auf den Sprachgebrauch der Gegenwart. Pp. 128. By ANNY ROHR. Giessen, 1929.

Studia Neophilologica; a Journal of Germanic and Romanic Philology 2. 1-116. Edited by R. E. ZACHRISSON. Uppsala: Lundequistska Bokhandeln, 1929.

Travaux du Cercle Linguistique de Prague. — 1. **Mélanges Linguistiques dédiés au premier Congrès des Philologues Slaves.** Pp. 245 — 2. **Remarques sur l'évolution phonologique du russe comparée à celle des autres langues slaves.** Pp. 118. By ROMAN JAKOBSON. Prague, 1929.

Two Medieval Documents from Tun-Huang. By F. W. THOMAS and STEN KONOW. (Royal Frederick University. Publications of the Indian Institute 1. 123-60) Oslo: A. W. Brøgger A/s, 1929.

Die Verwendung des Konjunktivs im Altenglischen. Pp. 144. By HANS GLUNZ. (*Beitr. zur engl. Phil.* xi). Leipzig: B. Tauchnitz, 1930.

***Zeitschrift für Eingeborenen-Sprachen* 20. 81-160 (1930).**

THE GUTTURALS IN HITTITE AND INDO-EUROPEAN

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[Hittite shows no trace of assibilation or palatalization of the gutturals, and so the development of the Indo-European palatals seems to have been subsequent to the Indo-Hittite period. Hittite shows an independent phoneme (*u* or *y*) corresponding to the labial element of the IE labio-velars, and this state of affairs must be assumed for IH also. The loss of this labial sound had begun under certain circumstances in IH, and it continued in primitive IE and in the historic IE languages.]

In common with a few other scholars I have for several years assumed that Hittite is related to the Indo-European languages only by virtue of the descent of primitive Indo-European and Hittite from a common ancestral language, and I have recently adduced proofs of the correctness of this view.¹ The new doctrine is of considerable importance, since, if it is accepted, it will enable us to reconstruct an earlier parent speech, for which I have suggested the name Indo-Hittite, and especially because it will provide an unhopd-for check upon numerous theories about primitive IE and the Pre-Indo-European period as far back as IH.

In the present paper I shall collect all the Hittite words I know which are cognate with IE words containing gutturals, in the hope of clearing up some of the vexed questions connected with the history of these sounds. We shall soon have much more material of this sort at our disposal, since our understanding of the Hittite vocabulary is rapidly improving; but enough is already available to show the main outlines of the story. It will be convenient to group the material under the familiar IE symbols as far as that is possible, and to use these symbols in reconstructing IH words. We shall find, when the evidence is all in, that the IH system of gutturals was far simpler than that of IE (see p. 224); but for the present we shall for convenience assume the IE state of affairs for IH also.

¹ *Transactions of the American Philological Association* 60. 25-37.

ĥ

Hitt. *kardiaš* (gen.), *kardi* (dat.) 'heart' is cognate with Gk. *καρδία*, Lat. *cor*, Lithuanian *szirdis* 'heart'.²

Hitt. *katta(n)* 'along side, with; down; afterwards' is cognate with Gk. *κατά*, as I have tried to show,³ but my former treatment requires correction at several points. It is now clear that the syllabic liquids and nasals yielded Hitt. *ar*, *al*, *am*, and *an* before consonants as well as before vowels⁴ (*arnuzzi* 'cause to go' = Skt. *ṛṇoti* 'move'; *kardiaš* = Gk. *καρδία*, *καρδίη*; *walh-* 'strike' = Gk. *βάλλω*; *-an* [acc. sing. ending of consonant-stems] = Skt. *-am*, Gk. *-α*; *anzaš* 'us': Gothic *uns*, etc.). Consequently both *κατά* and *katta(n)* represent an IH form which we may tentatively write ***ĥmtm*, while *καταί* and *katti* represent ***ĥmtai*. Hitt. *kuttaš* 'side' (?) and *kuttar* 'neck' (?) cannot be connected (correct LANG. 4. 125). The reason for assuming an IE palatal rather than a pure velar is the connection with IE **de-ĥmt* 'ten' and *ĥmtom* 'hundred' (see *AJP* 48. 247 ff.).

Hitt. *-kan* 'oñv' I have connected (*AJP* 48. 254-7) with Latin *cum*, on the basis of IE **kom*, which I take to be a shorter form of the stem **komt*, *ĥmt*, just discussed.

The deponent verb, *kitta*, *kittari* 'he lies', must be identical with Skt. *śete* and Gk. *κείται*.⁵

Hitt. *wek-* (first sing. *ú-e-ik-mi*, third sing. *ú-e-ik-zi*) 'ask, demand, beg' has been convincingly identified with Skt. *vaśmi*, *vaṣṭi* 'be eager, desire, command' and Gk. *έκών* 'willing' by Friedrich.⁶

Hitt. *takš-* (third sing. *tág-ga-aš-ši*, *tág-gi-eš-zi*, *ták-ki-iš-zi*, *ták-ki-iz-zi*) 'join, build, do' whence *takšan* 'together', *takšan* 'joint, junction', *takšatar* 'union',⁷ *takšul* 'friendly; peace', *takšula(i)-* 'make peace', *takšulatar* 'peace', is clearly the same word as Skt. *taṣṭi* 'builds', Lat. *texit* 'weaves'. The word is interesting as indicating that the highly specialized meanings of Skt. *takṣā*, Gk. *τέκτων* 'carpenter' and of Lith. *taszyti* 'hew' are secondary, and also because it sides with the majority of the IE languages against Gk. in showing a sibilant rather than a stop-sound as the root final.

² See Hrozný, *Journal of the Society for Oriental Research* 6. 691; Götze, *Zeitschrift für Assyriologie* 34. 183; Zimmern, *Streitberg-Festgabe*, 439.

³ *American Journal of Philology* 48. 249-53 (1927).

⁴ Cf. *LANGUAGE* 6. 30.

⁵ See *LANG.* 6, 26.

⁶ *Indogermanische Forschungen* 41. 369 f. (1923); cf. Sommer, *Boghazköi-Studien* 7. 55 and fn. 2.

⁷ See Sommer, *BoSt.* 7. 35; Friedrich, *ZA NF* 1. 179; 2. 49.

With somewhat less confidence I suggest that *ni(n)k-* 'rise, be exalted, satisfy one's self (with drink)' and *nini(n)k-* 'raise, take'⁸ may be identified with Skt. *aśnoti* 'obtains, attains', *naśati* 'obtains', Gk. *ἐνεργεῖν* 'carry', Lat. *nanciscor* 'get'. If so the basic meanings suggested for this root by Walde-Pokorny⁹ require some revision.

Possibly one should also connect Hitt. *yugaš* 'yearling' and the second element of *dayugaš* 'two-year-old' with Skt. *yuvaśas* 'young', Goth. *juggs* 'young' and Lat. *iuvencus* 'young bullock'. If so we must assume loss of the nasal in the Hitt. word, although the combinations *ank*, *enk*, and *ink* certainly survived. The meaning of *yugaš* must originally have been similar to that of Lat. *iuvencus*; but the word came to be applied exclusively to very young animals, and then *dayugaš* was formed (no doubt on the basis of some popular etymology that escapes us). One may compare also Lat. *vetus* 'old' beside Gk. *ἔτος* 'year'.

Hitt. *kammari* (dat.-loc.) 'bee-hive'¹⁰ is certainly to be connected with Gk. *καμάρα* 'vault', and Goth. *himins* 'heaven'.¹¹ I am inclined to see another meaning of the same Hitt. word in *kammaraš* 'light, sunshine', which Ehelolf,¹² on the contrary, regards as an assimilated form of *kalmaraš*. If I am right, Goth. *himins* preserves the most primitive meaning of the stem. There is no way of determining whether the initial IE sound was *k̂* or *q*.

Hitt. *hark-* 'have' may belong to the root of Gk. *ἀρκέω* 'protect, ward off' and Lat. *arceo* 'ward off, protect'. This root may have had either *k̂* or *q* in primitive IE.

g

Hitt. *genu* 'knee' was convincingly identified with Lat. *genu*, Av. *žnu-* and their cognates by Friedrich.¹³

I have connected (LANG. 3. 164 f.) Hitt. *ak-* (third sing. *aki*, third pl. pret. *eker*) 'die' with Lat. *ēgit* 'he has done' (Skt. *aj-*, Av. *az-*).

Hitt. *harkiš* 'white' has been plausibly connected by Kurylowicz with Skt. *arjunas* 'white', *rajatam* 'silver', Gk. *ἀργός* 'white', *ἄργυρος* 'silver', Lat. *argentum* 'silver', etc.¹⁴

⁸ See Götze, *Madduwattaš* 115–8.

⁹ *Vergleichendes Wörterbuch der Indogermanischen Sprachen* 1. 128.

¹⁰ Hrozný, *Code Hittite* 70; Zimmern, *Orientalistische Literatur-Zeitung* 25. 299 (1922).

¹¹ See Boisacq, *Dictionnaire Étymologique de la Langue Grecque*, s.v. *καμάρα*.

¹² Ap. Friedrich ZA NF 5. 80 f.

¹³ IF 41. 372–6. See also ZA NF 5. 37 f.

¹⁴ J. Kurylowicz, *Symbolae Grammaticae in Honorem Ioanis Rozwadowski* 101.

Hitt. *mekkiš* 'much, great', plural 'many', must be cognate either with Gk. μέγας, Lat. *magnus*, and Goth. *mikils*, which represent IE **meǵ-* or **meg-*, or with Skt. *mahā*, *mahi*, Av. *maz-* 'great', which represent IE **meǵh-*.

ǵh

The clearest Hittite evidence for IE *ǵh* is presented by *gimmanza* 'winter' = Skt. *hemantas*, Gk. χεῖμα, etc. (See LANG. 3. 119.)

I am inclined to see another instance in *gimraš* 'field' (see Friedrich, ZA NF 1. 180 f.): Gk. χαμαί 'on the ground', Lat. *humus* 'ground'. Pedersen's¹⁵ connection of Hitt. *tekan*, *dagan* 'ground' with the other form of this stem, which is represented by Gk. χθών, Skt. *kṣas*, etc., cannot be accepted. The Hitt. orthography might possibly indicate a pronunciation *tkan*, and such a metathesis of the two consonants in the initial group is plausible enough; but, as we noticed above (p. 214), Hitt. shows *kš* for Gk. κτ = Skt. *kṣ* (*takš-*: Skt. *takṣa*, Gk. τέκτων). A different treatment of the aspirated group is improbable. For a possible etymology of Hitt. *tekan*, see below (p. 227).

Hitt. *parkuš* 'high'¹⁶ must be identified with the root of Skt. *bṛhant* 'high'. The *nt-* suffix is widely extended in IE, but a number of words lack it, e.g. Skt. *barhas* 'tail-feather' especially of a peacock, Av. *bərəzi-*, *bərəz-* 'high', Arm. *berj* 'height'.

Hitt. *pankuš* 'widespread, all, whole' as a substantive 'multitude, totality, populace, army', has beside it a *ro*-stem (or *ri*-stem?), *pangarit* (instrumental) 'in force', whence the preterit middle *pangariyattatti* 'became numerous'.¹⁷ Hitt. *pankuš* corresponds precisely with Skt. *bahuṣ* 'much, many' and Gk. παχύς 'thick, large' on the basis of IE **bhǵhús*.

Hitt. *keššar* 'hand' = Gk. χεῖρ (see LANG. 3. 121) may contain either *ǵh* or *gh*.

Hitt. *laki* 'causes to fall', *laganza* 'prone', (middle) *lagari*, *lagaittari*, *lagaru* 'fall, lie',¹⁸ and *šaliga* 'συγγίγνεται'¹⁹ must be cognate with Gk.

I formerly (LANG. 3. 119) compared Goth. *bairhts* 'bright', etc., on the assumption that initial *bh* became Hitt. *h*. I expect to show soon that this assumption is false. No further account will be taken in this paper of the etymologies that I have based upon it.

¹⁵ *Le Groupement des Dialectes Indo-Européens* 41 f.

¹⁶ See Götze, *KF* 1. 109, fn. 1, and references.

¹⁷ See Friedrich, *ZA NF* 2. 279 and references; Götze, *Madd.* 114 f.

¹⁸ See Forrer, *Forschungen* 1. 183 ff.

¹⁹ Hrozný, *CH* 146. 51, 53; Sommer and Ehelolf, *BoSt.* 10. 66. I do not under-

λέκτο, ἐλέξατο 'lie', ἄ-λοχος 'wife', Lat. *lectus* 'bed', Goth. *ligan* 'lie', etc. The prefix of *šaliga* is the same as that of *šawitišza* 'of the same year', on which see LANG. 4. 228.²⁰ I am not certain whether this is *šam* (< ***sm* or ***som*-) with loss of the nasal before certain consonants, or whether we must assume an equivalent IH ***so*. The IE root meaning 'lie' may have contained either *ǵh* or *gh*.

q

Hitt. *lukzi* 'is light', *lukkatta* (middle) 'day dawns', *lukkešta* 'kindles'²¹ has long been recognized as a cognate of Skt. *rocate* 'shines', Lat. *lūceo*, etc. Even the *s* of *lukkešta* [luksta] appears in Skt. *rukṣas*, Av. *raoxšna* 'shining', etc., and has to be assumed for Gk. *λῦχος*, Lat. *lūmen*, *lūna*, etc.

Hitt. *karp-* 'take, lift, gather'²² must belong with Lat. *carpo* 'pluck', Gk. *καρπός* 'fruit' (See LANG. 6. 155-6). If Lith. *kirpti* 'cut with shears' or Skt. *kṛpāṇas* 'sword' are also related (so Walde-Pokorny, *VWIS* 2. 580-2), the initial consonant is *q*. Otherwise *k̂* is also possible.

Hitt. *kurur* 'hostile, enemy' and *kururiyah-* 'make, become hostile'²³ are probably cognate with Skt. *krūras* 'bloody, raw, cruel' (cf., Lat. *cruor* 'blood', *crūdus* 'bloody, raw, cruel', etc.). The Hitt. words are, I think, to be pronounced *krur* and *kruriyah-*, since the cuneiform writing can represent an initial consonant group only by inserting a vowel before or within it. Some will object that the words are usually spelled with an extra vowel sign (*ku-u-ru-ur*); but I am convinced that we cannot draw any phonetic conclusions at all from the double writing of either vowels or consonants in Hitt.²⁴ If, on the other hand, the first *u* is phonetic, the IE languages must here have lost the labial element of an original labio-velar; cf. pp. 224-7.

The familiar *q*-suffix appears in Hitt. **maninkuṣ* 'short', which is implied by the verbs *maninkuweš-* 'become short' and *maninkuwa-*

stand *šalikti* and *šalikzi* (*Keilschrifttexte aus Boghazköi* 2. 2. 2. 56; *Keilschrift-Urkunden aus Boghazköi* 7. 1. 2. 1); but they scarcely belong here. The context of *šalikaru* (*KUB* 9. 4. 3. 21) is incomplete; but it does not favor the meaning 'συγγλυνεται'.

²⁰ For *witiš* 'year', see now Hrozný, *Archiv Orientalní* 1. 282 f.

²¹ Zimmern, *OLZ* 25. 300 f. (1922); Sommer, *BoSt.* 7. 22-32; Götze, *Hattušiliš* 56; Friedrich, *ZA NF* 5. 49 f.

²² See Sommer and Ehelolf, *BoSt.* 10. 73 f.; Götze, *Hatt.* 98-100; Friedrich, *ZA NF* 1. 185 f.

²³ See Götze, *Hatt.* 79; Friedrich, *Staatsverträge des Hatti-Reiches in Hethitischer Sprache* 1. 88 f.

²⁴ Cf. LANG. 3. 162, 6. 151, *AJP* 50. 365.

'approach' (Götze, *Hatt.* 57 ff.). This *u*-stem adjective is obviously cognate, except for the stem-vowel, with Skt. *manāk* 'a little', Tocharian *menki* 'less', Lith. *menkas* 'little', and Germ. *mangeln*. The formal similarity to our Hitt. stem inclines one to assign also Skt. *mankuṣ* 'weak, tottering' to this root, in spite of Walde-Pokorny, *VWIS* 2. 268.

g

Hitt. *yukan* (*i-ú-kán-* 2 *Boghazköi-Texte in Umschrift* 14 2. 6) 'yoke' is obviously the same word as Skt. *yugam*, Gk. *ζυγόν*, etc. Götze (*IF* 42. 327 f.) has held that this is an Indic loan-word; but the reason which he alleges (final *n* in a neuter *a*-stem) is not valid.²⁵

Hitt. *halk-* 'shut' (Sommer, *BoSt.* 7. 1-6) may contain the prefix *ha-* = IE **o-* and the nil-grade of the root of Lat. *tego* 'cover'.

gh

Hitt. *dalugaeš* (nom. pl.) 'long' and *dalugašti* 'length' are cognate with Skt. *dīrghas*, Church Slavonic *dlǫgŭ*, Gk. *δολῆχος* 'long'.²⁶ Forrer and Friedrich regard the abstract noun as a loan word, but their reason (the rarity of the suffix) is scarcely conclusive, and there is no reason at all for suspecting the adjective.

Hitt. *linkzi* 'swears', *lingaiš* 'oath', etc. goes well with Gk. *ἐλέγχω* 'test, put to the proof'. If we connect also Skt. *langhati* 'leap, mount, escape, transgress', the final consonant of the root must have been *gh*; for the Hitt. and Gk. words *gh* would be equally possible.

qʷ

Hitt. shows the relative-interrogative-indefinite most frequently as an *i*-stem (cf. Lat. *quis*, *quid*, Gk. *τις*, etc.). We have the pronominal forms *kuiš*, *kuit*, *kuin*, (nom. pl.) *kueš*, which are directly traceable to this stem, as well as a number of compounds like *kuiški* 'quisquam', *kuišša* 'quisque', *kuiškuiš* 'quisquis', and the conjunctions *kuit* 'because, that, when' and *kuitman* 'while'. The neuter plural *kue* probably corresponds to IE **qʷai*.²⁷ The *o*-stem appears in *kuwat* [kwat] 'why' and *kuwatta* [kwata] 'how many' (?), which are probably cognate respectively

²⁵ See *AJP* 48, 249 f., *LANG.* 5, 140 f. On the initial consonant, see *LANG.* 4. 231.

²⁶ See Hrozný, *SH* 23; Forrer, *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 76. 262. Sturtevant, *LANG.* 3. 121, 4. 231; Friedrich, *ZA NF* 5. 35 and fn. 5.

²⁷ See *LANG.* 6. 25.

with Lat. *quod* and *quot*.²⁸ The same stem must also lie at the basis of *kuwali* 'while' (?),²⁹ *kuwapi* 'where, when, usquam, unquam',³⁰ *kuwapit* 'where, whither',³¹ and *kuwaten* 'why' (?).³² We are not now concerned with the final syllables of these words; but I should like to suggest in passing the comparison of *kuwali* with Lat. *qualis*, of *kuwapi* with Lat. *quippe*, and of *kuwaten* with Gk. *πῶθεν* (so Hrozný).

Another clear instance of *qʷ* before a vowel has been recognized in *šakuwa* (i.e., *šakwa*) 'eyes', which is cognate with IE **oqʷ-* 'eye' (Gk. *ὄσσε*, *oculus*, etc.) or with **seqʷ-* 'see' (Goth. *saihan*, etc.).³³ Quite possibly the two IE roots are related to each other in the same way as Gk. *στέγος* and *τέγος*, etc. For the connection between *šakuwa* and *šak-* 'know', see below, p. 226. If Friedrich³⁴ is right in understanding *akkuša* to mean 'pits' (for capturing wild animals), the word may represent the same stem without the initial *s*. The meaning is close to that of Gk. *ὅπη* 'hole', and the extension in *s* appears in Skt. *akṣi* (gen. *akṣṇas*) 'eye', and elsewhere.

The verb *eku-* 'drink, give to drink' shows the following forms: *e-ku-zi*, *e-ku-uz-zi* 'he drinks', *e-ku-ut-te-ni*, *e-ku-wa-te-ni* (KUB 1. 16. 3. 34) 'you drink', *a-ku-wa-an-zi* 'they drink', *e-ku-ir*, *e-ku-i-e-er* 'they drank', *e-ku* 'drink', *e-ku-ut-te-en* 'drink ye', *a-ku-wa-an-du* 'let them drink', *a-ku-wa-an-na* 'to drink', *a-ku-wa-an-na-aš* 'of drinking', *ak-ku-uš-ki-iz-zi* 'he keeps drinking', etc.³⁵ There is also an agent noun *a-ku-ut-ta-ra-aš*, *e-ku-ut-ta-ra-aš* 'one who gives drink'.³⁶ Possibly *ekunaš* 'kalt' and *ekunimaš* 'Kälte'³⁷ belong to this root. Hrozný connected Hitt. *aku-*, *eku-* with Lat. *aqua*, Goth. *aha* 'water, etc.'; but several scholars were doubtful about the equation, since they could not find any related verb-forms in the IE languages. Now that Pedersen³⁸ has found such

²⁸ See AJP 50. 363 f.

²⁹ Delaporte, *Grammaire de la Langue Hittite* 63 (§214).

³⁰ Sommer and Ehelolf, *BoSt.* 10. 54; Götze, *Hatt.* 86, 124; Friedrich, *Staatsverträge* 2. 141.

³¹ Sommer and Ehelolf, *BoSt.* 10. 54.

³² Hrozný, *SH* 146 and fn. 5, 148.

³³ Cf. LANG. 3. 163, AJP 50. 364 and fn. 15.

³⁴ ZA NF 5. 39. f. (1929).

³⁵ For citations and discussions of this verb, see Hrozný, *SH* 42 f., 61 f.; Zimmermann, *Streitberg-Festgabe* 439; Ehelolf, *Kleinasiatische Forschungen* 1. 137-142; Friedrich, *Staatsvertr.* 176.

³⁶ See Sommer, *BoSt.* 7. 60.

³⁷ See Götze, *KlF.* 1. 186.

³⁸ *Le Groupement des Dialectes Indo-Européennes* 40.

a verb in Tocharian *jokə* 'he drinks', *mā jokalle* 'one should not drink' (cf. *joko* 'thirst'), the objection does not hold. OIsl. *æger* 'sea' requires the ablaut *ē:ə*,³⁹ and so we must assume for IH, a conjugation ***ēq̣ti: əq̣enti*. The Hitt. verb shows an analogical spread of the vocalism of the singular into the second (and presumably the first) person plural, while the third plural retains *a* (<ə). On the other hand, the variant *ekwatēni* in the second plural owes the *a* before the ending to the influence of the third plural.

The common phrase *ne-ku-uz me-hur* means 'evening', as Sommer (BoSt. 7. 32-6) has shown, and, since *mehur* is certainly a noun, *nekuz* must be a genitive ('hour of evening' or the like). Two passages in an inscription published since Sommer's article confirm his conclusions perfectly, and supply another phrase containing our genitive.⁴⁰ KUB 9.22.2.46 ff.: *ma-ah-ha-an-[m]a* (47) *ne-ku-uz me-hur ki-šá-ri MU[L] wa-at-ku-zi* (48) *na-áš-ta LÜ Pa-ti-li-iš an-da p[a-i]z-zi*, 'when evening comes, (and) the star sets, the Patili-priest goes in'. Ib. 3. 38 f.: *ma-ah-ha-an-ma ne-ku-uz MUL [wa-]at-ku-zi* (39) *na-áš-ta SAL har-na-a-ú-i an-da [pí-e]-hu-te-iz-zi*, 'when the evening star (*lit.* star of evening) sets, then he brings in the woman to the birth-chair'. There is also a related verb *neku-*, from which I can cite a present active *ne-ku-zi*⁴¹ 'evening comes' and a preterit middle *ne-ku-ut-ta-[a]t*⁴² 'evening came'. There can be no doubt that Hitt. *nekuz* is to be identified with the stem **noq̣t-* 'night', which appears in Skt. *nak* (nom.), *naktam* (adv.), Gk. *νύξ*, etc. The Hitt. words confirm Brugmann's⁴³ two hypotheses, (1) that the second consonant of the root was a labio-velar, and (2) that the IE words consisted of a root *noq̣t-* with suffixal *t* (*νύξ*, etc.) or *ti* (Skt. *naktiṣ*, etc.). Boisacq's⁴⁴ contention that *ἀκρίς* 'ray' must, therefore, be separated from *νύξ* is apparently sound; but see below, p. 227.

g̣

Hitt. *wemiya-* 'come upon, find' is cognate with Lat. *venio* (LANG. 3. 220), and, since it must contain the full grade of the root, the usual

³⁹ See Walde-Pokorny, VWIS 1. 34.

⁴⁰ Hrozný, SH 69 f., cites from an unnumbered fragment two passages that may well belong to a duplicate.

⁴¹ Yale Tablet 1. 10 = TAPA 58. 6. Cf. *ne-ku-uz-zi*, cited from a fragment by Hrozný, SH 69.

⁴² KBo. 5, 8, 3. 19. So Sommer, BoSt. 7. 36.

⁴³ Grundriss der Vergleichenden Grammatik der Indogermanischen Sprachen² 1. 596, 2. 1. 426, 435.

⁴⁴ Dictionnaire Étymologique de la Langue Grecque 674.

identification of the latter word with Gk. *βαίλω* on the basis of IE **gʷh₂iō-* is less attractive than it was. Perhaps we should rather trace both the Lat. and the Hitt. words to IH ***gʷem₂iō-*, while Gk. *βαίλω* may contain **gʷai-*, nil-grade of the root seen in *ἔβην* and Skt. *agām*, as Fick⁴⁵ has suggested.

At any rate the root of Gk. *ἔβην* (Doric *ἔβᾶν*) and Skt. *agām* is to be seen in Hitt. *wa-*, *we-* 'go, come',⁴⁶ which presents among others the following forms: (first singular) *ú-wa-mi* [wami], (third singular) *ú-iz-zi*, *ú-e-iz-zi*, *ú-wa-az-zi* [wetsi], (third plural) *ú-wa-an-zi*, (first singular pret.) *ú-wa-nu-un*, (third singular) *ú-it*, (third plural) *ú-e-ir*. The verb had evidently gone over, at least in part, to the thematic conjugation.

I have identified Hitt. *walḫ-* 'strike' with Gk. *βάλλω* 'hit, throw'.⁴⁷ The IH root was ***gʷelh-* (cf. Arcadian *ἑσδέλλοντες*). The Hitt. present *walḫzi* (*wa-la-ah-zi*) comes from ***gʷlh-ti*, and Gk. *βάλλω* from ***gʷlh-iō-*.

Hitt. *warš-*, *waršiya-* 'mulcēre, be or become propitious; reap (a field)'⁴⁸ may be connected with the ablaut base ***gʷerēx-* 'praise', whence Skt. *gr̥ṇāti* 'he praises', *gūrtas* 'welcome', Lat. *grātus*, etc. If so the Hitt. word represents IH ***gʷr̥-s-* with a formative *s* akin to the aorist sign of IE.

I know of only one occurrence of the verb *ú-en-zi* (*KBo.* 6. 26. 3. 33 = Hrozný, *CH* 144 = Zimmermann-Friedrich, *Hethitische Gesetze* 30 §77); but it must mean 'he has sexual intercourse with, violates'.⁴⁹ Perhaps the word is cognate with Skt. *janī*, Gk. *γυνή*, *βανᾶ* 'woman'.

Hitt. *nekumanza* 'naked' must somehow be connected with Lat. *nūdus* and Goth. *naqaps*, which represent IE **nogʷedhos*. Götze, *Madd.* 120, has suggested that in this word *kum* is written for *w*, and I rather hastily followed him (*AJP* 50, 363). The difficulty with the theory is that in the above words Hitt. shows *w* corresponding to IE *gʷ* or *gʷh* before a vowel. Before a consonant, however, we should expect *ku*, as in *kunanzi* 'they smite' (see below, p. 222). It is, therefore, better to see in *nekumanza* the suffix *-men* or *-ment*, which, as I have shown in *AJP*

⁴⁵ *Glotta* 2. 128-30. Cf. Walde, *Lateinisches Etymologisches Wörterbuch*² s.v. *venio*.

⁴⁶ So Meillet, *Mémoires de la Société de Linguistique de Paris* 23. 258 (1929). For the Hitt. word, see Hrozný, *SH* 243 f.; Götze, *Hatt.* 84, *Madd.* 60³. For *uwa* = *wa*, see Sturtevant, *AJP* 50, 363-5.

⁴⁷ *Lang.* 3. 220; 4. 160.

⁴⁸ See Friedrich, *ZA NF* 3. 202; Götze, *KlF* 1. 192-7.

⁴⁹ See Friedrich, *ZA NF* 5. 57₂.

50. 360-9, arose in IH from earlier *-men* and *-ment* in case they were preceded by *u* or *ə*. Although *nekumanza* is an *nt*-stem (e.g., 2 *BoTU*. 9. 4. 8 = *KBo*. 3. 23. 2. 8: *ne-ku-ma-an-ti*), a transfer to this declension is not uncommon in Hitt. (e.g., *gimmanza* 'winter': Skt. *hemantas*). That the dental of the Germanic and Lat. words is formative is shown by Skt. *nagnas*, Lith. *nūgas*, and Ch. Sl. *nagŭ*. Hitt. *nekumanza* may, therefore, come from an IH stem ***négumē-*,⁵⁰ which probably alternated with ***négumén-*.

A transfer of the latter to the *o*-declension might well yield IE **négum-nó-*, and that, in turn, would become Gk. **άγυμνός*. Now we have evidence in Hesychius for a Gk. synonym: *άπολύγματος άπογύμνωσις Κύπριοι; λυμνός γυμνός*. No doubt *άπολύγματος* is genitive of **άπόλυγμα*, and *λυμνός* is **λυγμός* influenced by *γυμνός* either at the hands of some scribe or in the dialect from which the word is cited. Now **άπόλυγμα* and **λυγμός* may confidently be connected with *λυγίζω* 'bend, twist, turn'.⁵¹ The prefix *άπό* must originally have been essential to the meaning 'strip', but the adjective *λυμνός* shows that it came in time to be felt as a mere intensive which might be omitted (as in *άπόλλυμι*, *άποθνήσκω*, *άποκλέπτω*, etc.). This situation, I would suggest, may have led to the feeling that initial *a* of **άγυμνός* was also an intensive, as in *άπλός*, *άθρόος*, *άτενής*,⁵² and then *γυμνός* was substituted for **άγυμνός* to match **λυγμός* beside **άπολυγμος*.

gʷh

Hitt. *war-* 'burn' (intransitive), *warnu-* 'cause to burn'⁵³ contains the root ***gʷher* 'hot, be hot, heat, fire', which appears in Skt. *gharmas* 'heat', *haras* 'heat, anger', Gk. *θερμός* 'warm', *θέρος* 'summer', Lat. *formus* 'warm', Ch. Sl. *gorěti* 'burn', etc.

Hitt. *kuen-*, *kun-* 'strike, kill' (e.g., third singular *ku-en-zi*, third plural *ku-na-an-zi*, third singular pret. *ku-en-ta*, infinitive *ku-na-an-na*) is identified by all scholars with Skt. *hanti* 'he strikes, kills', plural *ghnanti*, etc. As is shown by *war-* 'burn' from ***gʷher-*, *wemiya-* 'come upon' from ***gʷem̥iō-*, *wenzi* 'has intercourse with' from ***gʷēnti*, etc., IH

⁵⁰ For *gu* instead of *gʷ*, see below p. 224.

⁵¹ For cognates in other languages, see Walde-Pokorny, *VWIS* 2. 413 f.

⁵² Possibly this process was assisted by phrases in which **άγυμνός* was preceded by a word ending in *a*; cf. Thucydides 3. 23 τὰ γυμνά, Diodorus 1. 76 τὰ πράγματα γυμνά.

⁵³ See Sommer and Ehelolf, *BoSt.* 10. 10; Friedrich, *ZA NF* 2. 48 f.; Sommer, *KlF* 1. 120-4.

***g^henti* should yield Hitt. **wenzi*, but the corresponding third plural *kunanzi* from ***g^hhnenti* quite regularly shows *ku* before a consonant; cf. *ekuzzi*, *nekuz*, *nekumanza*. It is, therefore, clear that the *ku* of *kuenzi* is analogical.

Hitt. *dankuš* 'dark'⁵⁴ corresponds with Gk. *δνόφος* 'gloom' and *λοδνεφής* 'violet-dark' except that it has nil-grade of the root and no suffix. Just as *kuw* corresponds to *π* in *kuwat* *πότερος* (see above, p. 218), so *ku* corresponds to *φ* here.

Since Hitt. is related to the IE languages only through IH, the evidence just cited brings complete certainty on certain features of IE which have hitherto been in doubt.

(1) Since Hitt. shows *k* for IE *k̂*, *ǵ*, and *ǵh*, there can be no further doubt that these were stops in IE. Otherwise we shall have to assume either that *ś* became *k* independently in Hitt. and in the centum-group of IE, or that IH *k* > IE *ś* > Lat. *k*. Either hypothesis is too improbable for serious consideration.⁵⁵

(2) More important is the proof that both IE and IH knew a distinction between pure velars and labio-velars. For it is incredible that the distinction could have been developed independently by Hitt. and the IE centum-languages. We must assume, therefore, that the *satəm*-languages lost the labialization either independently or in a *satəm*-dialect of IE. Since even the *centum*-languages tend to lose the labialization, there is no difficulty with the former assumption. (Cf., for example, Gk. *κls* beside *τls*, and the total loss of labialization in Modern French).

(3) Reichelt, *IF*. 40. 57-61 (1922), has shown that IE labiovelars are preserved before consonants only in Gk., where they appear as *π*, *β* or *φ*. Elsewhere the labialization is lost, and so Reichelt is inclined to think that, in Gk., forms like *πεπτός* and *πέψω* (instead of **πεκτός* and **πέξω*) are analogical. In Hitt., on the contrary, we have found *ku* for an original labio-velar before consonants in *ekuzzi*, *ekutteni*, *ekutten*, *akkuškizzi*, *akuttaraš*, *ekuttaras*, *nekuz*, *nekumanza*, *kunanzi*, *kunanna*, and *dankuš*, and perhaps in *akkuš*, *ekunaš*, and *ekunimaš*. The question arises how these words were pronounced. Our conventional

⁵⁴ See Götze, *Madd.*, 82 and references.

⁵⁵ This proof is not really needed since the demonstration by Hermann, *Kuhns Zeitschrift für Vergleichende Sprachforschung* 41. 38-46 (1907) and Bloomfield, *AJP* 32. 36-57 (1911), that primitive Indic and primitive Indo-Iranian had stop-sounds in this series.

treatment of the IE labio-velars may dispose us to pronounce *ekuzzi* in two syllables, although the history of the cuneiform writing demands three syllables. If the etymology suggested above (p. 221) for *neku-manza* 'naked' is correct, it seems to furnish an answer to the question; for a change of ***negʷ-yeu* to ***negʷ-men* is scarcely possible.

Having thus decided upon the trisyllable pronunciation of *nekumanza* [ne-ku-mants], I was surprised to discover the resulting harmony between this word and Gk. γυμνός, which I have already shown in detail. A similar instance would probably appear if we should find the plural of *wenzi*, which should be **kunanzi* < ***gunénti* corresponding to Gk. γυνή. One may thus suppose that γυνή from **gunā* and Boeotian βανᾶ from **gʷnā* show equally normal forms of the nil-grade in the first syllable. Parallel examples from the IE languages are Gk. σκύλαξ 'young dog': Norwegian *skvaldra* 'bark continuously', Lith. *skalikas* 'barking dog', etc.;⁵⁶ Gk. σκύζα 'lust', σκυζᾶν 'be in heat': σπάζει σκυζᾶ. 'Αχαιοί (Hesych.); Gk. κύκλος: Skt. *cakras* 'wheel'; Gk. ἐλαχύς 'small': ἐλαφρός 'light';⁵⁷ Gk. βραχύς 'short': Lat. *brevis*; Skt. *kutra*, *kuha* 'where', Lat. *si-cubi* 'if anywhere', Cretan ὅπνι 'whither', Syracusan πῶς 'whither' (contamination of stems **ku-* and *πο-*): **qʷo-*, **qʷe-*;⁵⁸ Lat. *gurdus* 'dolt': Gk. βραδύς 'slow'; Lat. *gurgus* 'abyss, whirlpool': *vorare* 'devour', Gk. βιβρώσκω, etc. (cf. Specht, KZ 51.11; Leumann, *Glotta* 18. 274).

(4) If we must thus assume for IH an ablaut *qʷe: qu*, it seems to follow that the IE labio-velars were originally nothing but *k*-sounds followed by consonantal *u*. This is the conclusion at which Hirt, *Idg. Gramn.*, 1. 231 f., has arrived from quite other premises; the Hitt. evidence confirms his reasoning completely. It is probable, however, that in primitive IE *qʷ*, *gʷ*, and *gʷh* were independent phonemes; and so I propose to retain these traditional orthographies while using instead *kʷ*, *gʷ*, and *ghʷ* for IH. Accordingly the term labio-velar properly applies to IE, but not to IH. To avoid misunderstanding I have several times written IH reconstructed forms with the symbols *gʷ* etc. Henceforth I shall restrict such symbols to IE, and write *ku* or *kʷ*, etc., in IH.

The comparative rarity in the IE languages of *ku*, *cu*, etc., for a labio-

⁵⁶ See Persson, *Bezzenger's Beiträge zur Kunde der Indogermanischen Sprachen* 19. 275 f.

⁵⁷ See Osthoff, *Morphologische Untersuchungen* 6. 1-69.

⁵⁸ Several less certain examples are cited by Hirt, *Indogermanische Grammatik* 1. 232. Cf. also Reichelt, *IF* 40. 62 ff.

velar before a consonant and the frequent substitution of something else (e.g., Gk. *πεπτός*, Lat. *coctus*), make it likely that at an early period analogy tended to get rid of the syllabic *u* of *ku* beside *kue*. Possibly the syllabic inequality of such verb-forms as IH ***ghénti* and ***ghunénti* (Hitt. *kuenzi*, *kunanzi*) provoked re-formation, and it is probable that the resulting third plural would be from the start ***ghnénti* (cf. Skt. *ghnánti*). At any rate some factor or factors tended to eliminate *u* after *k*, *g*, and *gh* even in IH. For that appears to be the explanation of the loss of labialization in Hitt. as well as in IE in the following cases:

Brugmann, *Grund.*² 1. 596 f., wrote: "Schwer zu beurteilen ist eine Anzahl von Formen mit *k*, die zu den Pronominastämmen **q_uo-*, **q_ui-* gehören: ion. *κως* ὅ-κως κότερος ὅ-κη; äol. ὅ-και; dor. -κα in ὅ-κα; thess. *κῖς* κῖς-κε διε-κῖ; allgemeingr. πολλά-κι -κῖς 'oft' = ai. ved. *purū cid* und *καλ* 'und' = lit. *kaĩ* aksl. *čě*."⁵⁹ In Hittite the labialization of this stem is lost in the particle *-ki* or *-ka*, or *kuiški*, *kuiška* 'quisquam'. The variant *kuišku* proves, if proof were needed, that the particle belongs to the relative-interrogative-indefinite stem.⁶⁰ In view of the compound pronoun *kuiš kuiš*⁶¹ one can scarcely ascribe *kuiški* to dissimilation.

Hitt. *kuer-*, *kur-* 'cut, shave' (third singular *ku-ir-zi*, third plural *ku-ra-an-zi*, third singular pret. *ku-e-ir-ta*, third plural imper. *ku-ra-an-du*)⁶² evidently belongs with Gk. *κείρω* 'cut, shave', Lat. *caro* 'meat', *corium* 'hide', Umbr. *karu* 'pars', Skt. *śarman* 'hide', etc. The Hitt. word is clear evidence for an initial *ku*, but all trace of the labialization has vanished from the IE languages. On the other hand, the extension of this root with *t* (Skt. *kṛntati*, Lith. *kertu*, *kirsti*, etc.) appears in Hitt. without labialization in *karš-* 'cut off, keep away, banish'.⁶³ The final *š* of *karš-* regularly developed from *t* before *t* of the third singular endings (KBo. 6.11.1.24: *kar-áš-zi*, KUB 8.51.2.8: *kar-áš-ta*). I have pointed out *š* of this origin in *šeš-* 'sleep' = IE. **sed-* 'sit',⁶⁴ and I shall soon have occasion to cite further examples of the change.

As I have shown (LANG. 3. 162 ff.), there is no doubt that Hitt. *šak-*, *šek-* 'know' is connected both with *šakuwa* 'eyes' (see above, p. 219) and with Goth. *saihan*, *sah*, *sēhvum* 'see'. I was mistaken, however, in

⁵⁹ Cf. Brugmann-Thumb, *Griechische Grammatik*⁴ 137 f.

⁶⁰ These three particles are combined with the IE enclitic **ne* in Skt. *-cana*, Av. *-cina*, OHG *-gin*; and Goth. *-hun*. It is safe to say that the last-named had a pure velar in IE. (**qu-ne*), and probably the others had also (**qe-ne*, **qi-ne*).

⁶¹ See Hrozný, *SH* 147.

⁶² See Forrer, *Forschungen* 1. 196.

⁶³ See Friedrich, *ZA NF* 2. 46 f., Götze, *Madd.* 45 f., 62.

⁶⁴ See LANG. 6. 27.

thinking that the loss of the labialization in Hitt. was regular before consonants. In view of the instances listed above of Hitt. *ku* before a consonant in roots which show a labio-velar in IE, it is more probable that the root was inherited by Hitt. in both forms (*šak-*, *šak-*). The former is to be recognized not only in the substantive but also in the participle, if Sayce (*Journal of the Royal Asiatic Society* 1930. 305) is right in translating *šakuwan eštu* (KUB 17. 10. 2. 16) by 'let it become visible'. The passage is too fragmentary for complete certainty, but no other possible interpretation occurs to me. In the IE languages, on the other hand, only the form with labio-velar is usually recognized. Aside from the meaning 'see' of Goth. *saihan*, etc., there is a more widespread meaning 'say' in Gk. *ἐνέπω*, *ἐνισπεῖν*, Lat. *insequē*, Lith. *seku*, *sekti*, etc. In spite of Walde-Pokorny, VWIS 2. 479, it seems probable that the latter meaning along with the delabialized form of the root is to be recognized in OE *insiht*, Goth. *insahts* 'account, narrative', *sakan* 'quarrel, scold', *insakan* 'remind'.

Hitt. *kištari* 'is quenched', *keštanu-* 'quench'⁶⁵ must be identified with Goth. *qisljan* 'destroy', Lith. *gestu*, *gesti* 'be quenched', and Gk. *σβέννυμι*, *ἔσβην*, *σβεσαι* 'quench'. A vocabulary fragment (KBo. 1. 42. 4. 4) preserves the word *kuštuwantawwar* 'ruin', which seems to be a denominative verb from an adjective **kuštuwanza* 'having destruction, ruined'. Apparently the *u* in the first syllable is a trace of the original labial which survives in the IE languages (cf. Hitt. *kun-*: *kuen-*).

Hitt. *huek-*, *huk-* 'conjure' (see Friedrich, ZA NF 4. 187 f. fn. 3) is evidently cognate with Skt. *vac-* 'speak', Gk. *ἔπος* 'word', Lat. *vox* 'voice', etc. (for the initial *h*, see LANG. 4. 159-70). The original labial appears in KUB 7. 53. 2. 6: *hu-uk-ku-iš-ma hu-uk-ki-iš-ki-iz-zi*, 'the conjurer (?) conjures' or 'he chants incantations (?)'.

Hitt. *watku-* has been recognized in the senses 'leap' and 'flee';⁶⁶ but I am inclined to see a more fundamental force in the passages quoted above (p. 220), in which MUL *watkuzi* means 'the star sets'. Probably *watku-* contains a prefix *wa-*, cognate with IE *uē* 'down', a by-form of *au*.⁶⁷ The verbal root I would identify with that of Lith. *denkti* 'cover' and Gk. *θάπτω* 'bury', namely IE **dhengʷh-* 'cover, bury'.⁶⁸ With this

⁶⁵ See Friedrich, ZA NF 1. 16.

⁶⁶ See Friedrich, ZA NF 2. 54.

⁶⁷ See Walde-Pokorny, VWIS 1. 14 f.

⁶⁸ See Zupitza, *Die Germanischen Gutturale* 99. Lidén, *Armenische Studien* 41 ff., followed by Boisacq, s.v., separates *θάπτω* from this root and connects it with Arm. *damban* 'tomb'.

root belong several Germanic nouns such as Eng. *dung* and Middle Low German *tunc* 'subterranean room', which may well be cognate with Hitt. *tekan* 'earth'. The latter word has lost the labial, although all the IE words may be traced to the root **dhengʷ-*.

The Hitt. particle of direct quotation, *wa*, is appended to the first word of a quoted sentence, thus: *hatrait*, 'uk-wa walhwanzi URU *Daluwa paimi*', 'he wrote: "I am going to attack Daluwas"'. If it is followed by a form of the enclitic pronoun *aš* 'he', the particle of direct quotation is *war*, thus: *numu memir*: 'paiweni-war-an-kan kuennnummeni', 'and they said to me: "we will accordingly go and kill him"'. I suggest that this particle be identified with Gk. γέ and δέ. It has been noted that Ch. Sl. *že* combines the uses of both Gk. particles and that it may represent either IE *ge* (whence Gk. γέ) or IE **gʷe* (whence Gk. δέ); evidently **gʷe* was the original form, but Gk. γέ reflects the loss of the labialization. The vocalism of Hitt. *wa* appears in Doric γά, and the extended form *war* may be identified with Gk. γάρ. On the source of Gk. α (and the same holds of Hitt. *a*), see H. Güntert, *Indo-germanische Ablautsprobleme* 77.

The gradual elimination of the labial element of the labio-velars continued throughout the IE period and later until it was completely lost in the *satəm*-languages. Even among the *centum*-languages there are to-day but few that still retain the ancient articulation, and they only in part (e.g., Italian *quale*, Spanish *cual*, Eng. *quick*). Primitive IE falls midway in the development, and it is not strange that we are forced to recognize some inconsistencies at that period.

In pre-Greek we must assume a contrary tendency, according to which labio-velars spread by analogy to the anti-consonantal position, and there developed into labials (e.g. ὄψομαι, ἐλαφρός). That such forms were really analogical is indicated by the fact that Gk. preserves more traces of the regular development (γυνή, ἐλαχίς, etc.) than any other IE language.

(5) Hitt. does not make any distinction between the IE pure velars and palatals, and apparently primitive IH did not either, although the available evidence is slight.

I have suggested (LANG. 6. 27-8) a connection between Hitt. *tekkušami* 'I point out', *tekkuššešta*, *tekkuššet* 'he showed', *tekkuš(ša)nu-* 'prove', etc., and IE **deik-* 'show' on the assumption that the Hitt. words all contain the nil-grade of the perfect active participial stem. This assumption, however, is as difficult as the etymology itself is self-evident.

Hitt. *tekkuš-* rather represents IH ***deikus-*, i.e. IE **deik-*, plus the element *u/ɥ* (which elsewhere united with IH *k* to form IE *qʷ*) plus the formative *s*, which gave rise to the IE present and aorist suffixes in *s*.

Similarly Hitt. *parkuiš* 'pure, guiltless', *parkuešzi* 'is acquitted', *parkunu-* 'purify, forgive' are to be connected with Skt. *bhrāśate*, an unquoted variant for *bhrājate* 'shines', Gk. *φορκόν λευκόν, πολιδόν*, etc., on the basis of IE *bherek-*⁶⁹ and IH *bhereku-*. The Germanic languages retain the labial element in Goth. *brahv-* (*in brahva augins* 'ἐν ῥιπῇ ὀφθαλμοῦ'), OE *bræw, brēaw, brēg* 'eyelid'. The Hitt. words must be connected with IE *bherek-* rather than with the equivalent and much more frequent **bhereǵ-*, since IH *gɥ* would yield Hitt. *w* (see above, p. 221).

Hirt⁷⁰ has made it extremely probable that the differentiation of the palatals from the velars arose in Pre-Indo-European times by palatalization before front vowels. If so we may assume root forms ***dikéu-*, etc., to account for the palatals in these groups of words. But, since there is no evidence for a vowel after the *k* or *g* and before the labial, it is safer to assume that the loss of the labial element *ɥ* in PIE preceded the development of the palatals.

For our IH reconstructions we need assume, then, only one series of *k*-sounds: *k, kh, g, gh*. These sounds were sometimes followed by a consonantal *ɥ*, which became syllabic before another consonant; and in IE the *k*-sounds combined with such a following *ɥ* to form the labio-velars. From the earliest times, however, *ɥ* in this position tended to be lost under conditions that cannot now be determined. After the IE period this process was carried to its logical conclusion in the *satəm*-languages, and, at a much later date, in some of the *centum*-languages. In IE *k*-sounds in certain positions (before front vowels?) were palatalized, and analogy generalized the palatalized sounds in some groups of related words or forms. This process affected both *k*-sounds which had never been followed by *ɥ* and those which had lost a following *ɥ*.

⁶⁹ See Walde-Pokorny, *VWIS* 2. 169.

⁷⁰ *Idg. Gramm.* 1. 232-41.

THE PERSONAL ENDINGS OF THE PRESENT AND IMPERFECT ACTIVE AND MIDDLE

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[See the first two paragraphs]

INTRODUCTORY

In 1927 I published in this Journal (3. 71-86) a study on 'The Inflection of the Present Indicative Active in Indo-European.' Since that time, further investigation, particularly along the lines of vocalic alternation (apophony, 'Ablaut'), with its underlying factor of accent, has led me to conclusions which seem to me so much deeper in foundations and, in a measure, so much broader in results that I regard that older discussion as practically supplanted by the one which I now present.

This investigation forms part of a series of three, the other two being 'Sur l'inflection des prétendus thèmes en -i' and 'Vocalic Alternation in the Disyllabic Base in Indo-European', to appear almost simultaneously with this in the *Bulletin de la Société de Linguistique de Paris* and the *American Journal of Philology* respectively. To the 'Disyllabic Base' I must refer for the theory of alternation here assumed, and there one will see that the difference between athematic and thematic bases still appears to me to be due solely to apophonic (i.e. accentual) factors, as I suggested in *LANGUAGE* 3. 85-6. Concerning the origin of the personal endings it seems premature (if not impossible) to express any reasoned opinion; but it will at least be obvious that I do not share the view that composition (or agglutination) and nominal formations have played an important part in verbal inflexion.¹

FIRST PERSON SINGULAR

The normal athematic type of the *present active* is represented by Ved. *ādmi*, GAv. *staomī*, OPers. *amiy*, Turf. ('Tokharian A') *šem*, Kanes.

¹ See, for the most recent exposition of this theory, H. Hirt, *Indogermanische Grammatik* 4. §§ 45 sqq., Heidelberg, 1928. On the accent of the verb in general see R. Loewe, *Der freie Akzent des Indogermanischen* 1-20, Berlin, 1929; cf. A. Meillet, 'Remarques sur les desinences verbales de l'indo-européen', *BSLP* 23.64-75 (1927).

(‘Hittite’) *epmi* (but also *arhi*), Arm. *em*, Gk. *εἰμι*, Lat. *sum*, OIr. *am(m)*, Goth. *im*, Lith. *esmi*, OCSlav. *jesmǐ*; and the thematic by Kuch. (‘Tokharian B’) *laka-u*, Kanes. *tittanumi*, Gk. *φέρω*, Lat. *ferō*, OIr. *-biur*, Goth. *baíra*, OHGerm. *biru*, Lith. *vedù*, OCSlav. *bera*, < **berō-m*, etc. In the thematic type Indo-Iran. shows *-āmi*, as Ved. *bhārāmi*, YAv. *barāmi*, OPers. *dārayāmiy*. This *-ā-* is an obvious survival of an earlier **bhārā* < **bhērō* (Gk. *φέρω*, etc.), still preserved in ten different subjunctives in Ved., in nine indicatives (with nine subjunctives) in GAv., and in two indicatives in YAv., the latter having also the more primitive form *zbayemi*.² The type in *-āmi* is, accordingly, a ‘double first’.

The corresponding ending for the *present middle* is **-ei*, **-oi* for athematic verbs, and **-ai* (*ai* : *oi*) for thematic, as Ved. *uvé*, *váste*, *bhāre*, GAv. *mruyē*, *ārōi*, *yesē*, Kuch. *aikema-r*,³ OIcel. *heite*, OLith. *duomie-t* (?). It would appear, from a comparison of these forms, that Gk. *φέπομαι* (like the OLith. form) received its *-m-* from the first person plural, so that the original form would have been **φέpai*, its historic form being due to the analogy of *φέperai*, etc.⁴ On the other hand, the termination of the *perfect active* type of Ved. *ījé*, OLat. *fecei*, Lat. *tetudī*, OCSlav. *vědě* is more probably derived from **-ei*, **-oi* than from **-ai*, the current view notwithstanding.

The *imperfect active* shows *-m*, as Ved. *adoham*, *ābravam*, *āgaccham*, GAv. *čōišəm*, *darəsəm*, OPers. *ajanam*, *abaram*, Kuch. *takoym*, *yamīm*, Kanes. *hinkun* < **-ōm*,⁵ Gk. *ἔβην*, *ἔφερον*, Lat. *-bam*, OIr. *-ba*, *-ber* < **-ām*, OCSlav. *mogŭ*. The athematic type of Ved. *adoham*, GAv. *čōišəm*, etc., seems to have borrowed its *-am* from the corresponding thematic form, and its vocalism from its own present singular, its strictly

² B. Delbrück, *Altindisches Verbum* 26, Halle, 1874; C. Bartholomae, in *KZ* 29. 272–3 (1888), and *GirPh.* 1 a § 333, Strasbourg, 1901; K. Brugmann, *Grundriss der vergleichenden Grammatik der indogermanischen Sprachen*² 2. 3. § 503, 2, Strasbourg, 1916.

³ With Kanes. *yahha-ri*, *ašhaha-ri* cf. the perf. ending *-a*, as Ved. *vēda*, Gk. *οἶδα*. For the Kanes. verb in general see L. Delaporte, *Éléments de la grammaire hittite*, Paris, 1929, and ‘Étude sur le verbe hittite aux modes personnels’, in *JA* 212. 267–321 (1928); F. Hrozný, ‘Das hethitische Mediopassivum’, in *Actes du premier congrès international des linguistes* 155–64, Leyden, 1928; J. Friedrich, in *ZdmG* 76. 167–73 (1922); E. H. Sturtevant, in *LANGUAGE* 3. 165–9 (1928); for the Kuchaeen, S. Lévi and A. Meillet, in *MSLP* 18. 2–33 (1914).

⁴ Such Arcad. forms as *ἐπισυνίστατοι*, *ἔσεται*, *βόλεται*, *τέτακτοι*, etc., may owe their *-o-* to analogy with secondary terminations in *-o*.

⁵ For the phonology cf. Kanes. acc. sg. *antuhš-an* < **-om*, acc. pl. *antuhš-uš* < **-ons*.

schematic form having been **áduha* < **é-dhughm*, etc. The termination of Arm. *beri* is doubtful.⁶

The *imperfect middle* has **-i* for athematic and **-o-ə* (ə : o; probably on the analogy of the present middle) for thematic verbs, as Ved. *ávrñi*, *áhuve*, GAv. *-aojī*, YAv. *aguze*, OPers. *patiyāvahyaiy*, Kuch. *takoymā*, *wlawoyma-r*. The Gk. middle form *ἐφάμην*, *ἐφερόμην* < **-mān* (Dor. *ἐφάμāν*, Argol. *εὐξάμāν*) has given rise to much discussion, for one would expect either **ἐφέρεμο* on the analogy of *ἐφέρετο*, etc., or **ἐφραι* on the analogy of Ved. *bhāre* (injunct.). As Meillet-Vendryes and Hirt have already pointed out, however,⁷ *ἐφερόμην* is probably for **ἐφῆρāν* (< **ἐφῆρāμ*), and it may be suggested that it is to be derived from a very early innovation **e-bhérōmā* > **ébhōrōmā* > **ἐφῆρāμ*.⁸

The earliest inferable terminations of this person would seem to have been:

	Athematic	Thematic
Active present	<i>-mi</i>	<i>-ō</i>
“ imperfect	<i>-m</i>	<i>-o-m</i>
Middle present	<i>-ei</i> , <i>'-oi</i>	<i>-ai</i>
“ imperfect	<i>-i</i>	<i>-o-ə</i>

Tabulating these in the alternation-scheme of a termination-base **-ēi*, **-ōi*, the results are:

N a **-ēi*, **-ōi* (**bherēi*, **bhērōi*)

b **-ē*, **-ō* Ved. *stāvā*, Gk. *φῆρω*, etc.⁹

S a **-ei*, **-oi* Ved. *yujé*, *ī'se*, GAv. *ārōi*, YAv. *mruye*, OLat. *fecei*, OCSlav. *vědě*

b **-e*, **-o* Ved. *vēda*, *jagrābha*

R a **-ai* Ved. *bhāre*, GAv. *yesē*, Gk. *φέρομαι* < **φῆρ(ομ)αι*, OIcel. *heite*, OLith. *duomie-t* (?)

b **-ə* Ved. *áhuve* < **-o-ə*, Gk. *ἐφερ(όμ)ην* < **ἐ-φῆρōμ*

⁶ A. Meillet, *Esquisse d'une grammaire comparée de l'arménien classique* § 95, Vienna, 1903.

⁷ A. Meillet and J. Vendryes, *Traité de grammaire comparée des langues classiques* § 473; H. Hirt, *Handbuch der griechischen Laut- und Formenlehre*² § 404, Heidelberg, 1912, *Grammatik* 4. § 64, 7; for Kanes. *ešhat(i)* see Hrozný 162.

⁸ Either < **-ome* which > *mā* internally and *ām* finally, or < **-mā* > *-ām* through analogy with such aorists as *ἐχάρην*, *ἐβάφην*, etc. (for examples see Hirt, *Formenlehre* § 419).

⁹ The type of *φῆρω*, etc., might also be explained as < **bhérō-o*, in which case the grade would be Sb. This encounters grave difficulties, however, in the type of *φῆρεis*, etc., unless it be assumed that the ultra-reduced vowel was contracted with a following short vowel, but vanished before a diphthong.

- R a $*-i$, $*-o$ ($*bhér.i$, $*bhér.o$)
 b $*-e$, $*-o$ Ved. *ágaccham*, Gk. *ἐρεπον*, etc., < $*é-g^u\eta sk_o-m$,
 $*é-bher_o-m$, etc.
 Z a $*-i$ (OPers. *adaršiy*, etc.)
 b $*-o$ ($*bhérO$).

SECOND PERSON SINGULAR

The normal athematic type of the *present active* is represented by Ved. *átsi*, YAv. *pāhi*, Turf. *şes*, Kuch. *nesdh* < $*nes-tu$ (?),¹⁰ Kanes. *epši*, Arm. *es* < $*es-si$, Hom. *ἔσσι*, OLat. *ess*, OIr. *a-t*, Goth. *is*; and the thematic by Ved. *bhāvasi*, YAv. *barahi*, Kanes. *iyasi*, Lat. *legis* < $*lege-si$, OIr. *beni* < $*bhina-si$, Goth. *batris*, OHGerm. *biris*.

Beside this stand forms in $*-ei$: OIr. *-bir*, OPruss. *sātuinei*, Lith. *sukì*, *sukìe-s*, Lett. *metti*, *mettiē-s*; and in $*-eis$: Ossete *fāvís*, Tāliš *bīš*, Wai-Alā *viasš*, Gk. *φέπειs*. The form in $*-ei$ seems to be the grade Sa of a termination-base $*-ēi$, $*-ōi$, whose grade Sb has already been seen in the thematic first singular active. While the grade $*-ēi$ may indeed underlie the Iran., OIr., and Balt. forms, Gk. *φέπει-s* can arise only from $*-ei-s$. This *-s* in the Iran. and Gk. seems best explicable as the grade Zb of the termination-base $*-sēi$, $*-sōi$, added to the base $*-ēi$ $*-ōi$ on the analogy of the characteristic consonant *s* of the athematic inflexion to distinguish the second from the third singular (Ossete *fāví*, Tāliš *bī*, Gk. *φέπει* < $*φέπει-τ$). Originally thematic, $*-ei$ was transferred in Gk. to athematic verbs (cf. Ved. *bhárti*, Gk. *φέρτε*, and perhaps Lat. *fers*,¹¹ etc.), just as the athematic ending $*-si$ was transferred to thematic verbs not only in Indo-Iran., but also in Italo-Celt. and Teut. The original form would appear to have been $*bh_ereis$.

Besides $*-ei$ one also finds $*sei$ in OPruss. *waise(i)*, *seggēsei*, *druwēse*, *asse(i)*, etc., OLith. *duosi*, *desie-s*, and OCSlav. *berěši*, the latter best explained as < $*beriši$ (with *e* instead of *i* on the analogy of the second plural *berete* = Gk. *φέρτε* ?) < $*berēi-sei$, i.e. a 'double second'.¹² On the analogy of $*-el$, $*-oi$ in the first singular perfect Ved. *ūjé*, etc., it may be suggested that one has here a survival of an old *perfect middle*

¹⁰ Lévi-Meillet, in *MSLP* 18. 8 (1914).

¹¹ Lat. *fers*, etc., may, however, be syncopated from $*fer-es$, etc. (Stolz-Schmalz, *Lateinische Grammatik*⁵ § 219 e, Munich, 1928); for $*bher$ beside $*bhere$ see P. Persson, *Beiträge zur indogermanischen Wortforschung* 693, Upsala, 1912.

¹² To the references in *LANGUAGE* 3. 75₃ add A. Meillet, *Le Slave commun* 29, Paris, 1924; J. Endzelin, *Lettische Grammatik* § 596, Heidelberg, 1923; N. Van Wijk, *Altpreussische Studien* 13-23, 59-60, 127, The Hague, 1918, and 'Zu den altpreussischen Personalendungen', in *IF* 47. 148-60 (1929).

ending *-seī found in Ved. *cakṛṣé*; and this hypothesis seems borne out by the accentuation (cf. Ukrain. *daś*, Štokav. *jěsi*), which obviously was **beresi*. (Kanes. also shows -*tī*, -*šti* in this person, as *apti*, *pešti*; and in the present has *eštat* beside *epši*.)

The corresponding *present middle* ending is *-seī, *'-soi for athematic verbs, and *-sai < *-sai (ai : oi) for thematic, as Ved. *vitsé*, *ī'kṣe*, *bhārāse*, YAv. *pərəsahe*, Gk. *ῆσαι*, *φέπει*, *φέρη* < **φέπεισαι*, OPruss. *assai*; and for the *imperfect active*, *-s, e.g. Ved. *ā's*, *āyās*, *ābharas*, GAv. *dā*, *mraoš*, *dārayō*, YAv. *vaočas-čā*, OPers. *gaudaya*¹³ (injunct.), Kanes. *daś* (but also *iya-t*, *ep-ta*, *memiš-ta*, *peš-ta*, *arnut-ti*), Arm. *berer* < **é-bheres-r(e)*,¹³ Gk. *ἐβηs*, *ἐφεpes*, Lat. *fuas*, -*bas*, OIr. -*ba*, Corn. *cares*, OCSlav. *nese* < **neseš* (cf. OPruss. opt.-impv. *wedais*, *wedeys*, *weddeis*¹⁴). Goth. *baīraza* stands alone in having the ending *-sō.¹⁵

The *imperfect middle* has *-so, as GAv. -*aoyžā* < **é-eug^h-so*, YAv. -*zayaṇha*, Gk. *ῆσο*, *ἐφέρεο*, *ἐφepov* < **ἐφepεσο*, Lat. *sequere*. Side by side with this is *-thēs in Ved. *ādhatthās*, *ābharathās*, Kuch. *dhatmasdha-r* (?), Gk. *ἐδδθηs*, OIr. *cluīnte* (impv.), *suidigthe-r* (pres.).¹⁶ It may further be suggested that we again have a 'double second' as in the cases of Gk. *φepεις* and OCSlav. *beresi*, *-thēs being really a conglomerate of *-thē + *-s, the latter parallel with Gk. *φepει-s*, etc., and the former in apophonic relation with *-tha of the second singular *perfect active* (Ved. *véththa*, *cakārtha*, GAv. *dadaṭhā*, Gk. *οἶσθα*, Goth. *parft*). The vocalism of *-thēs implies an original accent, so that its connexion with the imperfect must be late. It is obviously connected with the *-te-s(i) of the second plural present active, but one may suspect that the original ending was *-so, *-o-so.¹⁷

The earliest inferable terminations of this person would seem to have been:

	Athematic	Thematic
Active present	-si	-ei-s
“ imperfect	-s	-e-s
Middle present	-seī, '-soi	-e-sai
“ imperfect	-thē'-s, -so	-o-so, -e-thē'-s

¹³ Meillet, *Esquisse* §§ 88, 94.

¹⁴ For the type of Lith. *sakai*, Lett. *saki* see Endzelin § 596 c.

¹⁵ A. Meillet, in *BSLP* 23. 68 (1922), and *MSLP* 23. 219 (1929), and similarly for the other persons.

¹⁶ OIr. *bertha* seems to show *-thās (H. Pedersen, *Vergleichende Grammatik der keltischen Sprachen* 2. § 605, 2, Göttingen, 1913). Kanes. has *eštat*.

¹⁷ Brugmann, 2. 3 § 577, 2, suggested that *-so belonged originally to the thematic type, and *-thēs to the athematic.

Tabulating these in the alternation-scheme of a termination-base *-sēi, *-soi, the results are:

N a	*-sēi, *-sōi, (*bher _(o) sēi, *bhér _(o) sōi)
b	*-sē, *-sō, Goth. <i>baíraza</i>
S a	*-sei, *-soi, Ved. <i>krṣé</i> , (<i>cakṛṣé</i>), OPruss. <i>waisei</i> , OCSlav. <i>berěši</i> , Ukrain. <i>dasí</i>
b	*-se, *-so GAv. <i>-aoryžā</i> , YAv. <i>-zayayha</i> , Gk. <i>ῆσο</i> , Lat. <i>sequere</i> , etc.
R a	*-sēi Ved. <i>bhārasē</i> , Gk. <i>ῆσαι</i> , OPruss. <i>assai</i> , etc.
b	*sə (*bhér _e se)
R̥ a	*-sēi, *-sōi (*bhér _(e) sēi, *bhér _(o) sōi)
b	*-se, *-so (*bhér _(e) se, *bhér _(o) so)
Z a	*-si Ved. <i>ātsi</i> , <i>bhāvasi</i> , Hom. <i>ἔσσι</i> , Goth. <i>baíris</i> , etc.
b	*-s Ved. <i>ā'gas</i> , <i>ābharas</i> , Gk. <i>φῆπει-s</i> , <i>ἔφepes</i> , etc.

THIRD PERSON SINGULAR

This person closely resembles the second singular, except that its characteristic consonant is *t* instead of *s*.

The normal athematic type of the *present active* is represented by Ved. *pā'ti*, *bhārti*, GAv. *vaštī*, OPers. *aitiy* (YAv. *aē'ti*), Dor. *διδωτι*, Lat. *est*, OIr. *is*, Goth. *is*, OPruss. *ast*, Lith. *ēst(i)*, ORuss. *jestī*; and the thematic by Ved. *bhāratī*, GAv. *bara'tī*, OPers. *tarsatīy*, Arm. *berē* < *berēy < *bhéreti, Lat. *agit*, OIr. *berid*,¹⁸ Goth. *baíriþ*, OHGerm. *birit*, ORuss. *beretī*.¹⁹ Besides this are forms in *-ei: Gk. *φῆπει* < *φῆπει-τ < *φepēi-τ, Ossete *fāvt*, Tāliš *bī*, and probably OIr. *-beir*. In Kuch. the simple verb-base serves without ending, as *yapi* (in *laitam*, *swāsam* etc., *-am* appears to be a suffixed particle),²⁰ as is also the case with Aeol. *δεῖκνῦ*, *δάμνῶ*, *τίθη*, *δίδω*, *ὄρη*.²¹ (Kanes. here shows *-tšī and -i, as *iyazi*,²² *dāi*, *ari*; and Turf. has *şeş*.)

The corresponding *present middle* ending is *-teí, *-toi for athematic verbs, and *-tai < *-tāi (ai : oi) for thematic, as Ved. *brūtē*, *vāste*, GAv. *vastē*, *hača'tē*, YAv. *mrū'te*, *bara'te*, OPers. *gaubataiy*, Kuch. *mrauskāte*

¹⁸ R. Thurneysen, *Handbuch des Alt-Irischen* § 559, Heidelberg, 1909; less probably Pedersen 2. § 603.

¹⁹ OCSlav. sometimes shows -tī beside the far more usual -tū, e.g. *estī*, *možetī* (O. Wiedemann, *Beiträge zur albulgarischen Conjugation* 11-13, Petrograd, 1886).

²⁰ Lévi-Meillet 6, 8.

²¹ F. Bechtel, *Die griechischen Dialekte* 1. 97, Berlin, 1921.

²² Sturtevant, in *LANGUAGE* 4. 228-9, 230-1 (1928), holds that *t* > *z* before original *i*. For Kanes. *z* < *t* + *š* see Delaporte, *Éléments* § 69.

(?) (also *maskīt-r*, *dhatmast-r*),²³ Phryg. *αββερατ*,²⁴ Gk. *ῆσται*, *φέρεται*, Anglo-Sax. *hátte*. Besides this, one also finds **-et* **'oi*, **-ai* in Ved. *duhé*, *śáye*, *stáve*, YAv. *mrúye*, which clearly stand in apophonic relation with the **-e* of the third singular perfect active (Ved. *véda*, *jajā'na*, GAv. *vaēdā*, *nānāsā*, Gk. *olde*, *γέγωνε*, OLat. *sheshake-d*, Osc. *dede-d*,²⁵ Gaul. *deēde*, OIr. *-cechuin* < **kekane*, Goth. *baup* (perfect middle: Ved. *jajné*, GAv. *dādrē*, YAv. *vaoče*). Goth. *batrada*, however, shows **-tō*.

The imperfect active has **-t*.²⁶ Ved. *ápāt*, *ácarat*, GAv. *mraot*, *dārayat*, OPers. *agarbāya*^h, Kanes. *iyat*, *dāš* < **dā-s-t* (-s-)aorist, Arm. *ed*, *eber*, Phryg. *αββεper* (from the context almost certainly injunct.),²⁷ Gk. *ῆβη*, *ἔφερε*, Lat. *-bat*, OIr. *-beir*, *-cria* (conjunct presents), Lith. *mēta*, Lett. *met* (presents),²⁸ OCSlav. *može*. In Kuch. the termination is zero (*weña*, *āra*, *lacā*, *čem*).²⁹ In the imperfect middle the ending is **-to*, as Ved. *ásūta*, *ámandata*, GAv. *yūxtā*, *gūšatā*, OPers. *akutā*, *agaubatā*, Kanes. *arta-ti*, Phryg. *αββιpero* (reading not absolutely certain), Venet. *zoto*, Gk. *ῆστο*, *ἐπέπερο*, OIr. *-bered*.

The earliest inferable endings of this person would seem to have been:

	Athematic	Thematic
Active present	<i>-ti</i>	<i>-et-t</i>
“ imperfect	<i>-t</i>	<i>-e-t</i>
Middle present	<i>-tei</i> , <i>'-toi</i>	<i>-e-tai</i>
“ imperfect	<i>-to</i>	<i>-e-to</i>

Tabulating these in the alternation-scheme of a termination-base **-tei*, **-tōi*, the results are:

N a **-tēi*, **-tōi* (*bher*_(s)*tēt*, *bhēr*_(s)*tōi*)

b **-tē*, **-tō* Goth. *batrada*

S a **-tei*, **-toi* Ved. *brūtē*, GAv. *vastē*

b **-te*, **-to* Ved. *ásūta*, GAv. *yūxtā*, Gk. *ῆστο*, etc.

²³ Lévi-Meillet 6, 12, 13. With Kanes. *yatta-ri* (also *epta*, *memišta*, *eša[t(ari)]*) cf. Lat. *fertur*, Umb. *ferar*, etc. (Hrozný 160).

²⁴ The suggestion of J. Fraser (*Transactions of the Cambridge Philological Society* 6. 2. 12⁴ [1913]), that 'it is almost certain that the [Phrygian] middle endings are borrowed from Greek', is perhaps not quite so sure.

²⁵ Cf., however, Stolz-Schmalz § 246, 3.

²⁶ A. Meillet, 'Sur les désinences secondaires de 3^e personne du singulier', in *MSLP* 23. 215-21 (1929).

²⁷ But see Fraser 7⁴, 8¹, 12³. Whether Lyc. *prñnawātē* 'ἐποιήσατο', *prñnawātē* 'ἐργάσατο' belong here is uncertain in view of the obscure affinities of the language; and Lyd. *fēnslifid* (sing.), *vq(?)bapēnt* (twice with a single subject and twice with two subjects) are likewise dubious (Lyd. is probably not IE; cf. Gray, *JRAS* 1930. 625-7).

²⁸ Endzelin § 597.

²⁹ Lévi-Meillet 3.

R a	*-tai	Ved. <i>bhāratē</i> , GAv. <i>hača'tē</i> , Gk. <i>φέραι</i> , etc.
b	*-tə	(<i>bhēr_(e)tə</i>)
R̥ a	*-t _e i, *-t _o i	(* <i>bhēr_(e)t_ei</i> , * <i>bhēr_(o)t_oi</i>)
b	*-t _e , *-t _o	(* <i>bhēr_(e)-t_e</i> , * <i>bhēr_(o)t_o</i>)
Z a	*-ti	Ved. <i>bhārti</i> , GAv. <i>vaštī</i> , Dor. <i>δίδωτι</i> , ORuss. <i>jestī</i> , etc.
b	*-t	Ved. <i>ápāt</i> , GAv. <i>mraoť</i> , Gk. <i>ἔβη</i> , <i>ἐφερε</i> , etc.

FIRST PERSON PLURAL

The characteristic ending of this person seems to be *-mē'-, *'-mō-, to which *-s(i) or *-n(i) is usually added, thus forming a conglomerate termination.

The normal athematic type of the present active *-mē'-s(i), *'-mō-s(i) is represented by Ved. *imāsi*, *stumāsi*, *dviṣmās*, *brūmās*, GAv. *čišmahī*, YAv. *gərədmahi*, OPers. *amahy*, Turf. *ymas*, Cret. *θῶμες* (subj.), Lat. *sumus*, OIr. *ammi* < **esmési*, the ending being *-mēs(i), with *-mé in Czech *neseme*; apparently *-mē's in OHGerm. *beramēs*, *tuomēs*; and *-mē' in OPruss. *asmai*, *druwēmai*, Lith. *ėsme*, *sūkame*, *sukamīe-s*, OLet. *esmi*, Lett. *essam*, *silam*, *silamiē-s*.³⁰ The thematic type *'-mos(i) is seen in Ved. *ārcāmasi*, *hārāmas*, *yājāmas(i)*, GAv. *sənghāmahī*, YAv. *barāmahī*, OPers. *ṭahyāmahy* (with -ā- instead of -a- through analogy with the first person singular, the older forms appearing in GAv. *vaēdayamahī*, YAv. *zbayamahī*), Turf. *kalkamas*, Dor. *φέρομες* < **φέρομος* through analogy with the athematic type, Lat. *ferimus* (by the same analogy), OIr. *bermi* < **bhēr_emosi*; *'-mo appears in OIr. *beram*, Goth. *sijum*, *qīpam*,³¹ OCSlav. *nesemŭ*, Štokav. *jěsmo*, *imāmo* (Ukrain. *imō*), *pletěmo* < **mō* (analogically changed from the thematic type); and *'-mō in Goth. *qīpaima* (opt.).

Another conglomerate, *-mē'-n(i), *'-mō-n(i), seems to occur in Kanes. *wahnumēni*, *aummeni*, *tiyaweni*, *šekkueni*, *nemaweni*, *paiweni* (also *paiwani*), *harnikweni*, *dašgaweni*,³² Gk. *ἔσμεν*, *φέρομεν* < **-μον*. This *-n(i) appears to stand in apophonic relation with *-na < *-n_e in the second plural active present, imperfect, and imperative (e.g. Ved. *pāthāna*, *yātāna*, *ā'yatana*), and with *-ni < *-n_ə in the first singular subj. active (e.g. Ved. *brāvāṇi*).

³⁰ For OLet. *esma*, dialectic Lett. *eīma*, see Endzelin § 598.

³¹ See E. Kiekers, *Handbuch der vergleichenden gotischen Grammatik* 191, Munich, 1928.

³² For Kanes. *w:m* see Delaporte, *Éléments* §§ 54, 56, 122 b, 213; Sturtevant, 'A Pre-Indo-European Change of *y* to *m* after *u* or *ə*', in *AJPh* 50. 360-9 (1929).

The corresponding *present middle* ending was *-médhæi, *'-modhæi for athematic verbs and *'-_o-modhæi (æi : oi) for thematic, though in the historic period only the former occurs in Gk., as Ved. *hūmāhe*, *ā'smahe*, *yājāmahe* (with -ā- instead of -a- through analogy with the first singular active), GAv. *aog'madaē-čā*, *yazama'dē*, YAv. *staoma'de*, *yazama'de*; with *-médhæ in Gk. *ῥέμεθα*, *φερόμεθα*. These terminations seem best explicable as the grades SbRa and SbRb of a conglomerate *-mēi-dhēi, *-mōi-dhōi whose second component may be seen in the second singular active of imperatives of the type of Ved. *viddhī*, *pāhī* (accent!),³³ GAv. *idī*, YAv. *idi*, OPers. *idīy*, Gk. *ιθι*. Kanes. shows *ešwašta(tī)*, *arwašta(t)*, possibly comparable with Hom. *φερόμεσθα*.³⁴

The *imperfect active* has *-me(s), *-mo(s), and *-men: (a) Ved. *ápāma*, GAv. *dāmā*, YAv. *haxma*, Dor. *ῥέμεσ*, *ῥέμεσ*, Lith. *būvome*; (b) Ved. *ābharāma*, GAv. *ta'rvayāma*, YAv. *bavāma* (also the more original form *ta'rvayama*), OPers. *atarayāma*^h, Lat. *-bāmus*, *fuāmus*, OIr. *-beram*, OCSlav. *mogomŭ*; (c) Kanes. *arnummen*, *ešwen*, Gk. *ῥέμεν*, *ἐφάρομεν*. In the *imperfect middle* the endings are *-medhi, *-modhæ (æ : o), as Ved. *āvṛṇīmahi*, Skt. *abharāmahi*, GAv. *dva'dī*, Gk. *ῥέμεθα*, *ἐφάρομεθα* (Kanes. *pariyawaštati*).

The earliest inferable endings of this person would seem to have been:

	Athematic	Thematic
Active present	-mē'-(s)(i), -mē'-n(i), '-mō-(s)(i), '-mō-n(i)	'- _o -mō-(s)(i), '- _o -mō-n(i)
“ imperfect	-me-(s), -me-n (-mo-(s), -mo-n?)	- _o -mo-(s), - _o -mo-n
Middle present	-médhæi, '-modhæi	'- _o -modhæi
“ imperfect	-medhi, (-modhi?)	- _o -modhæ

Tabulating these in the alternation-scheme of a termination-base *-mēi, *-mōi, the results are:

N a *-mēi, *-mōi (*bher(ə)mēi, *bhér(ə)mōi)

b *-mē, *-mō Goth. *qīpaima* (opt.), OHGerm. *beramēs*, Lith. *ėšme*, etc.

³³ For the repartition of Ved. *-dhi* and *-hi* see J. Bloch, in *MSLP* 23. 175-8 (1929). The impv. type of OLith. *duodi*, OCSlav. *daždī* scarcely belongs here (Meillet, *Slave* § 360).

³⁴ Hrozný 161; Hom. *-μεσθα* is probably by analogy with *-σθε*, etc. (K. Brugmann-A. Thumb, *Griechische Grammatik* § 423, Munich, 1913).

- S a *-mei, *-moi (*bher(e)mei, *bhér(o)moi)
 b *-me, *-mo Ved. *imási*, *dviṣmās*, *yājāmas(i)*, Cret. *θάμες*, OIr. *bermi*, *beram*, OCSlav. *nesemǎ*, Czech. *neseme*; Kan. *waḥnumêni*, Gk. *ἐσμέν*, *φέρομεν*; Ved. *hūmāhe*, *yājāmahe*; Gk. *ἡμεθα*, *φερόμεθα*; Ved. *ápāma*, *ābharāma*, Dor. *ἡμες*, *ἴκομες*, Att. *ἡμεν*, *ἐφάρομεν*; Ved. *āvṛṇīmahi*, Skt. *abharāmahi*, Gk. *ἡμεθα*, *ἐφερόμεθα*
- R a *-māi (*bhér(e)māi)
 b *-mā (*bhér(e)mā)
- R̥ a *-mēi, *-mōi (*bhér(e)mēi, *bhér(o)mōi)
 b *-mē, *-mō (*bhér(e)mē, *bhér(o)mō)
- Z a *-mi (*bhér(e)mi, *bhér(o)mi)
 b *-m (*bhér(e)m, *bhér(o)m)

SECOND PERSON PLURAL

In the historic period the characteristic endings of this person seem to be *-te (often with conglomerate *-s(i) or *-n(i), as in the first person plural) for the *active*, and *-dhue(i), *-dhue-m for the *middle*.

The normal athematic type of the *present active* is represented by Kuch. *triçcer* <*-te-r,³⁵ Gk. *ἐστέ*, Lith. *ėste*, OCSlav. *jeste*; and the thematic by Kuch. *yatmacer*, Gk. *φέρετε*, Goth. *bairiþ*, Lith. *sùkate*, Lett. *sitat*,³⁶ OCSlav. *berete*. Indo-Iran., however, shows *-th_a, probably through analogy with the second singular *imperfect middle* (Ved. *ddhatthās*, etc.) and the same person *perfect active* (Ved. *véttha*, etc.), as Ved. *hathá*, *bhárata*, GAv. *uštā*, *iśaθā*, YAv. *dasta*; and this may be extended in the *present* by *-na <*-n_e, as in Ved. *sthána*, *yāthána*.³⁷

The conglomerate *-te-si perhaps occurs in OIr. *berthe* if <*bertsi <*bhéretesi;³⁸ *-te-s may be found in Lat. *agitis* <*agetes;³⁹ and *-the-s in Hindī, etc., *calo* <*carathas;⁴⁰ while *-te-ni is present in Kan. *sirēk'* (H. Pedersen, in KZ 38 [1905]. 213).

³⁵ Lévi-Meillet 10; for *c* (i.e. *č*) < *t* before prepalatal vowels and *y* see Meillet, in JA 10. 17 (1911). 450.

³⁶ For further details see Endzelin § 599; Van Wijk, *Studien* 61-2.

³⁷ In Naxian Mod. Gk. one finds *θέρετε*, *ἀκοβρετε*, but probably as a modern development, not as an ancient survival (A. Thumb, *Handbook of the Modern Greek Vernacular* § 214, 4, Edinburgh, 1912).

³⁸ Gray, in LANGUAGE 3. 80.

³⁹ For various other theories see Stolz-Schmalz 304-5. Here, too, probably belongs the type of Arm. *sirēk'* (H. Pedersen, in KZ 38 [1905]. 213).

⁴⁰ For another view see J. Bloch, in *Kuśōtsava Smārakasamgraha* 481-3, Benares, 1928.

pešteni, iyateni. In the *perfect active*, simple **-é* is found, as Ved. *vidá*, *cakrá*, *babhūvá*.

In the *imperfect active*, the ending is **-te*, as Ved. *ā'ita*, *ābhavata*, GAv. *dātā*, *vaēnatā*, YAv. *pāta*, *jasata*, OPers. *itā*, Gk. *ἔβητε*, *ἔφερετε*, Lat. *agite* (impv.-injunct.), OIr. *-berid*, Lith. *sūkote*, OCSlav. *možete*; **-tana* < **-te-n* in Ved. *ā'itana*, *āyātana*; and **-ten* < **-te-n* in Kanes. *iyaten*, *kappuwatten*.

The corresponding *present middle* ending is **-dh̥ei* for athematic verbs, and **-dh̥ei* (əi:oi) for thematic, as Ved. *agdhvé*, *bhāradhve*, GAv. *mer'ng'duyē*, *daduyē*,⁴¹ YAv. *čaraθwe*, besides, apparently, **-dh̥e* in Hom. *ἐγρήγορθε* with *-θε* < **-θα* by analogy with *λελοίπατε*, etc.⁴² A conglomerate **-s-dh̥e* seems best to explain the type of Gk. *ἦσθε*, *φέρεσθε* with *-θε* < **-θα* by analogy with *φέρετε*, etc. In the *imperfect middle* the endings are the conglomerates **-dh̥e-m* for athematic verbs, and **-dh̥e-m* (ə:o) for thematic, as Ved. *ārādhvam*, *ājuśadhvam*, GAv. *āidūm*, *syōdūm*, YAv. *zambayaδwəm*, Kanes. *eštumm-at*, *pahhašdum-at* (impvs.) (this *-dum-* may also be regarded as the grade ZZb of **-dhe̯em-*; the Kanes. present also has *yadduma*, *šarkaliyatumari*). Gk. here shows the conglomerate **-s-dh̥e* as in the thematic present, e.g. *ἐρίθισθε*, *ἐδίδοσθε*, *ἔφερεσθε* < **ἔδιδοσθα*, etc., with *-θε* < **-θα* as above.

The earliest inferable endings of this person, from the historic evidence, would seem to have been:

	Athematic	Thematic
Active present	<i>-te-s(i)</i> , <i>-te-n(i)</i>	<i>-e-te-s(i)</i> , <i>-e-te-n(i)</i>
“ imperfect	<i>-te-n(ə)</i>	<i>-e-te-n(ə)</i>
Middle present	<i>-(s)-dh̥ei</i> <i>(-s)-dh̥ei(?)</i>	<i>-o-(s)-dh̥e(i)</i>
“ imperfect	<i>-(s)-dh̥e-m</i>	<i>-e-(s)-dh̥e-m</i>

One must observe, however, that this person alone shows a distinction in consonant-characteristic for the active and middle—**-t-* and **-dh̥-*—and that the former is identical with the characteristic consonant of the third person singular, only the vocalism being unlike. Moreover, all the other persons show a gradation in vowels, whereas in the active of the second plural the grade **-te* is constant throughout. It may be suggested, in the light of these facts, that the original characteristic

⁴¹ Cf. Bartholomae § 268, 19.

⁴² For other views see Brugmann-Thumb § 417 note; J. Wackernagel, in *Nachrichten der königlichen Gesellschaft der Wissenschaften zu Göttingen, philolog.-hist. Klasse*, 1914. 98.

here was **-dhy-* for both voices, so that the earliest active conjugation-forms were:

	Athematic	Thematic
Active present	<i>-dhyē'-(s)(i), -dhyē'-n(i),</i> <i>'-dhyō-(s)(i), -dhyō-</i> <i>n(i)</i> (Ved. <i>*studhvas(i), Gk. *ἴσθῃ, etc.)</i>	<i>'-o-dhyō-(s)(i), '-o-dhyō-n(i)</i> (Ved. <i>*bhāradhvas(i), Gk. *ἐρεθε < *ἐροθο, etc.)</i>
" imperfect	<i>-dhye-s, -dhye-n</i> <i>(-dhyo-s, -dhyo-n?)</i> (Ved. <i>*ástudhvas, Gk. *ἴθῃ, etc.)</i>	<i>-o-dhyo-s, -o-dhyo-n</i> (Ved. <i>*ábharadhvas, Gk. *ἐρέπεθε < *ἐρεπαθο, etc.)</i>
Reducing the <i>*-dhy-</i> -type (with the exception, of course, of the hypothetically restored active forms) to the alternation-scheme of a termination-base <i>*-dhyēi, *-dhyōi</i> (Z grades of <i>*dhyēi, *dhyōi</i>), the results are: ⁴³		
N a	<i>*-dhyēi, *-dhyōi</i>	<i>(*bherdhyēi, *bhērdhyōi)</i>
b	<i>*-dhyē, *-dhyō</i>	<i>(*bherdhyē', *bhērdhyō)</i>
S a	<i>*-dhyēi, *-dhyōi</i>	Ved. <i>agdhvé, etc.</i>
b	<i>*-dhye, *-dhyo</i>	Ved. <i>ārādhvam</i>
R a	<i>*-dhyai</i>	Ved. <i>bhāradhve, etc.</i>
b	<i>*-dhyā</i>	Gk. <i>ἴσθε, (ἐ)τίθεσθε, (ἐ)φέρεσθε, Hom. ἐργήγορθε < *-θα(?)</i>
R a	<i>*-dhyai, *-dhyoi</i>	<i>(*bhér(ē)dhyai, *bhér(o)dhyoi)</i>
b	<i>*-dhye, *-dhyo</i>	<i>(*bhér(ē)dhye, *bhér(o)dhyo)</i>
Z a	<i>*-dhyi</i>	<i>(*bhér(ē)dhyi, *bhér(o)dhyi)</i>
b	<i>*-dhyu</i>	<i>(*bhér(ē)dhyu, *bhér(o)dhyu)</i>

THIRD PERSON PLURAL

This person is formed very much like the corresponding singular, except that the various grades of the termination-base **-tēi, *-tōi* are preceded by *-n-* (apparently the grade Zb of the termination-element **-nēi, *-nōi* already found in the first singular active [Ved. subjunct. *brāvāṇi*], first plural active [Kanes. *wahnumēni*, Gk. *φέρομεν*], and second plural active both indicative present [Ved. *sthāna*, Kanes. *iyateni*] and imperfect [Ved. *ātana*, Kanes. *iyaten*, cf. Gk. *ἐφάρομεν*], as well as imperative [Ved. *yātāna*]).

The normal type of the *present active* is represented by **-nti* for athematic verbs and by **-o-nti* (*i : oi*) for thematic, as Ved. *dādati*,

⁴³ All the historic forms in **-te* fall in the grade Sb of the termination-base **-tēi, *-tōi*, discussed under the third person singular.

júhvati (< *'-*nti*), *badhnánti* (< *-*ónti* [!]), GAv. *dada'tī*, *hentī*, YAv. *hanti*, OPers. *ha'tiy*, Turf. *sencā*, Arm. *en*, Delph. *ἐντι*, Att. *εἰσι*, Lat. *sunt*, OIr. *it*, OWel. *hint*, Goth. *sind*, OCSlav. *dado_ntŭ* (< *-*ntŭ*) for athematic verbs; and Ved. *bháranti*, GAv. *marəntī*, YAv. *barənti*, OPers. *bara'tiy*, Turf. *kalkencā*, Arm. *beren*, Lacon. *ἐχοντι*, Att. *ἐχουσι*, OLat. *tremonti* (?), Lat. *ferunt*, Umb. *furfant* (?), Gaul. *cartaont* (?), OIr. *birit*, Goth. *bindand*, OHGerm. *bindant* < **bīndandī*, Anglo-Sax. *bindaþ* < **bīndānþi* (cf. Ved. *badhnánti*, above), ORuss. *berutŭ*,⁴⁴ OLith. *gina_n*⁴⁵ for thematic.

In the *imperfect active* the ending *-*nt* for athematic verbs is represented by Ved. *ádīhan*, GAv. *jīgər'zať*, *g'mən*, YAv. *usən*, OPers. *āha_n*, Lacon. *ἔδον* (aorist),⁴⁶ OCSlav. *daša_n* (< **snt*; -s-aorist); and -*o-nt* for thematic by Ved. *ábharan*, GAv. *mōr'ndan*, YAv. *barən*, OPers. *abara_n*, Gk. *ἐφερον*, Lat. -*bant*, OIr. -*berat*, OCSlav. *pleta_n*.

The corresponding athematic *present middle* ending *-*ntē*, *'-*ntoi* is represented by Ved. *vásate*, *punáte*, *punaté*, GAv. *šava'tē*, YAv. *aoša'te*, Gk. *τιθενται*, Goth. *haitanda* (< *-*ntō*); and the thematic *-*o-ntai* (oi:oi) by Ved. *bhárante*, GAv. *visəntē*, YAv. *barənte*, Kuch. *yanem* (also *melem ne*),⁴⁷ Gk. *φέρονται*. In the *imperfect middle* one finds for the athematic type *-*nto*: Ved. *ámṛjata*, GAv. *varatā*, YAv. *ur'θənta*, Kanes. *ešantat*, Gk. *ἐτίθεντο* (these three by analogy with the thematic type, cf. Ion. pluperf. *ἐστάλατο*, perf. *ἀποδέδεχαι*); and for the thematic *-*o-nto*: Ved. *ábharanta*, GAv. *dvārəntā*, YAv. *yazənta*, OPers. *abara'tā*, Kanes. *kīšanta(ti)*, Gk. *ἐφέρνητο*.

Besides these forms, there are perhaps some made by a conglomerate of the termination-bases *-*ntēi*, *-*ntōi* and *-*sēi*, *-*sōi* in the grades *-*ntsi* and *-*nts* (ZZZa and ZZZb respectively) in the *present* and *imperfect active*, the former in Apabhram. Prāk. *vaṭṭahi_n*, Kanes. *appanzi*, *danzi*,⁴⁸ and the latter in Osc. *fufans* (impf.), Paelig. *coisatens*, Marruc. *amatens*, Volsc. *sistiatens*, (perfects), Umb. *dirsans* (subjunct.), etc.⁴⁹

⁴⁴ OCSlav. rarely shows -*tŭ* beside the much more usual -*tŭ* (e.g. *so_ntŭ*, *mogo_ntŭ*; Wiedemann 23-4).

⁴⁵ Cf. also such dialectic Lith. phrases as *nėra kas dara_n* 'one has nothing to do' (lit., 'there is nothing that they do'); Endzelin, in *IF* 33. 124-5 (1914).

⁴⁶ The forms *ádīhan*, *g'mən*, *usən*, *āhan*, and *ἔδον* instead of **ádīhat*, etc., are influenced by analogy with the corresponding thematic types.

⁴⁷ Lévi-Meillet 6-7.

⁴⁸ The Kanes. forms may, however, be explained as <-*nti* (cf. under the third singular).

⁴⁹ Cf. Gray, in *LANGUAGE* 3. 82-4; H. Ehrlich (*IF* 11 [1900], 299-307) derives the type from *-*ens* < *-*enes* (nom. pl. of an -*en*-stem) + (*sent*). The types of Skt.

The earliest inferable endings of this person would seem to have been:

	Athematic	Thematic
Active present	-nti	-o-nti
“ imperfect	-nt	-o-nt
Middle present	-nteí, '-ntoi	-o-ntæi
“ imperfect	-nto	-o-nto

For their tabulation in alternation-scheme cf. the third singular.

FIRST PERSON DUAL⁵⁰

The normal type of the *present active* is represented by the endings *-uē'-s(i), *'-uō-s(i), *'-o-uō-s(i), i.e. by conglomerates of the termination-bases *-uēi, *-uōi + *-sēi, *-sōi. Only GAv. shows *-uē-si, *'-uō-si, as *usvahī*; all the rest have *-uē-s, *'-uō-s, as Ved. *cārāvas* (with -ā- instead of -a- by analogy with the first singular), Argive ἄρωγυς (i.e. *ἄρωγυς), ἄρωμεν (Hesychius),⁵¹ Goth. *ga-leiþōs* (< *-o-uz < *-o-uiz < *-o-uaz⁵²), Lith. *ẽsva*, *sùkava* (reflex. *sùkavo-s*),⁵³ OCSlav. *jesvě*, *vedevě* (with -ě either by analogy with the first dual pronoun *vě* or < I-E *-uēs),⁵⁴ OSCr. *sva*, OPol. *jesua*. In the *imperfect active* the endings are *-uē, *-uō, as Ved. *hánāva*, *cārāva* (subjunctives), GAv. *ahvā*, YAv. *ḡvāva*, Goth. *siju*, *magu* (< *-uūē, *'-uūo), Run. *varitu* < *writuwe,⁵⁵ all < *-uē, *'-uō; Goth. *sitaiwa* (opt.) < *'-uō or *-uē'.

abharann iha, *abharans tatra* (the second not Ved.), Mod. Gk. *δένουν* must be rejected (see respectively Bartholomae, in KZ 29. 514-8; A. Macdonell, *Vedic Grammar*, §77, Strasbourg, 1910; J. Wackernagel, *Altindische Grammatik* 1. §§279-80, Göttingen, 1896; A. Thumb, *Handbuch des Sanskrit* §§178, 180, Heidelberg, 1905; H. Oldenberg, *Hymnen des Rigveda* 1. 424-34, Berlin, 1888; and A. Thumb, *Griechische Sprache im Zeitalter des Hellenismus* 197-8, Strasbourg, 1901; K. Dieterich, *Untersuchungen zur Geschichte der griechischen Sprache* 247, Leipzig, 1898; S. B. Psaltes, *Grammatik der byzantinischen Chroniken* 209, Göttingen, 1913.

⁵⁰ See A. Cuny, *Le Nombre duel en grec* 56-64, 84, 108-17, 179-86, 286-99, 371-2, 390-1, 419-20, 455, 462-3, 470, 474-5, 482, 496, Paris, 1906.

⁵¹ ib. 58, 474.

⁵² Kiekers 191.

⁵³ Memel *dirbau*, sec. dual *dirbatau*, is apparently by analogy with standard Lith. first sing. impf. *dirbau*.

⁵⁴ For the Slav. dual in general see Meillet, *Slave* §§351-3; F. Miklosich, *Vergleichende Grammatik der slavischen Sprachen* 3². 64-7, Vienna, 1876; W. Vondrák, *Vergleichende slavische Grammatik* 2². 115-6, Göttingen, 1928.

⁵⁵ E. Noreen, *Geschichte der nordischen Sprachen* 3 §251 d, Strasbourg, 1913; A. Jóhannesson, *Grammatik der urnordischen Runeninschriften* 65, 68, 93, Heidelberg, 1923, however, regards it as first sing. pres. act. OSax. *wīta* 'allons' may not be a verb-form (F. Holthausen, *Altsächsisches Elementarbuch* §§328, 1, 395, 403³, Heidelberg, 1899).

In the *present middle* the endings are *-yédhæi, *'-yodhæi, *'-o-yodhæi (æi : oi), as Ved. *dádvahe*, *sácāvahe*; and in the *imperfect middle* *-yedhi, *-yodhi, *-o-yodhæ, as Ved. *gánvahi* (root-aorist), *sacevahi* (opt., A-V), GAv. *dva'dī* < **duyadhi*.⁵⁸

The earliest inferable endings of this person would seem to have been:

	Athematic	Thematic
Active present	-yē'-(s)(i), '-yō-(s)(i)	'-o-yō-(s)(i)
“ imperfect	-yē-(s)	-o-yō-(s)
Middle present	-yédhæi, '-yodhæi	'-o-yodhæi
“ imperfect	-yedhi, -yodhi	-o-yodhæ

For their tabulation in alternation-scheme cf. the first plural, with the substitution of *y* for *m*.

SECOND PERSON DUAL

The normal ending in the *present active* seems to have been *'-to-s, *-o-to-s, (for which Ved.—Iran. affords no evidence here—has, as in the corresponding plural, -th-), as Ved. *hathás* (< **tés*), *bhārathas*, Goth. *bi-gats*,⁵⁷ Lith. *ēsta*, *sùkata* (reflex. *sùkato-s*), OCSlav. *jesta*, *vedeta*; and in the *imperfect*, *-to-m, -o-to-m, as Ved. *ā'stam*, *ābhavatam*, Gk. *ἦστον*, *ἐφέρετον* < **ἐφέροτον*.⁵⁸ In the *present middle* one finds *'-toi, *-o-tai (æi : oi; Ved. -th- instead of -t-), as Ved. *ā'sāthe*, *vārethe*, YAv. *čarōthe* (second dual used as third); and in the *imperfect*, *-tō-m, *-o-tō-m, as Ved. *mīmāthām* (impv.), *ārabhethām*.⁵⁹

On the evidence of Balto-Slav., which alone shows a real distinction

⁵⁸ Gk. *περιδύμεθα*, *δρμύμεθα*, *λελείμμεθα* are plurals used as duals (for these readings, instead of -μεθον, see J. Wackernagel, *Sprachliche Untersuchungen zu Homer* 55, Göttingen, 1916). -μεθον—if it really existed (it is recorded only as a variant for -μεθα in *Iliad* 23. 485; *Soph. Elec.* 950; *Phil.* 1079)—was formed from -μεθα on the analogy of the second dual -σθον (Brugmann-Thumb § 426). Grammarians record Aeol. *φερόμεθεν*, etc.

⁵⁷ For the possible development from P-Teut. **eðis* < **etes* (more probably **eðas* < **etos*) see Kiekers 191; R. Bethge, in F. Dieter, *Laut- und Formenlehre der altgermanischen Dialekte* §210, e, Leipzig, 1900; F. Kluge, *Urgermanisch* §198, Strasbourg, 1913.

⁵⁸ The present type of Gk. *ἐστών* must be analogical with the impf., since the true present would probably be **ἐστονι* or **ἐστονο* (cf. present second plur. *Kanes. iyatēni*, Ved. *stāna*).

⁵⁹ Gk. *(ἐ)φέρεσθον* seems to be a contamination of *(ἐ)φέρεσθε* and *(ἐ)φέρετον* (Brugmann-Thumb §426).

between the second and third dual, the earliest inferable endings of the second person would seem to have been:

	Athematic	Thematic
Active present	'-to-s	-o-to-s
“ imperfect	-to-m	-o-to-m
Middle present	'-toi	-o-tai
“ imperfect	-tō-m	-o-tō-m

For their tabulation in alternation-scheme cf. the third singular.

THIRD PERSON DUAL

The normal ending in the *present active* seems to have been *-tē-s, as Ved. *hatás*, *bhávatas* (< *-to-s), YAv. *mrūtō*, OCSlav. *jeste*, *jesta*, *vedete*, *vedeta*;⁶⁰ and in the *imperfect*, *-tām, as Ved. *ā'stām*, *ābhavatām*, YAv. *āitām*, *jasatām*, OPers. *ašivat(?)am*,⁶¹ Boeot. *ἀνεθέραν*, El. *λεολτᾶν*, Att. *ἤστην*, *ἐφερέτην*.⁶²

In the *present middle* one finds *-tai < *-tei and *-tāi, as Ved. *súvāte*, *bruvā'te*, *váde*, GAv. *var'nva'tē*, *myāsa'tē*, YAv. *čara'te*; and in the *imperfect*, *-tām, as Ved. *duhātām*, (impv.), *árejetām*, GAv. *asrvātām*, *apār'saētām* (Dor. *κτισσάσθᾶν*, Att. *ἐφερέσθην* is apparently a contamination of *ἐφερεσθε* and *ἐφερέτᾶν*).

The earliest inferable endings of this person would seem to have been:

	Athematic	Thematic
Active present	-tē-s	-o-tē-s
“ imperfect	-tām	-o-tām
Middle present	-tei	-o-tai
“ imperfect	-tām	-o-tām

Summarising the results obtained from study of each person separately, one may picture the inflexion of the present and imperfect active and middle of the athematic base *ed- 'eat' and of the thematic *bhere- 'bear' somewhat as follows:

⁶⁰ For the distribution see Wiedemann 25-7.

⁶¹ Foundation-Charter 14 (V. Scheil, *Inscriptions des Achéménides à Suse* 16, 25, Paris, 1929).

⁶² One may have here an instance of the alternation ā : o (Hirt, *Grammatik* 2. §191, Heidelberg, 1921). Such rare Gk. forms as sec. dual impf. *ἤθελέτην*, *εἰχέτην*, third dual impf. *ἐτεύχετον*, *διώκετον*, are probably due to confusion, especially as the dual was already moribund in Gk. (cf. Brugmann-Thumb §419).

Act. pres. 1 s.	<i>édmi</i>	<i>bhérō</i>
2 "	<i>édsi</i>	<i>bh_rreis</i>
3 "	<i>édti</i>	<i>bh_rreít</i>
1 p.	<i>dmě'si, dmě'ni</i> (<i>édmōsi, édmoñi</i> ?)	<i>bhér_rmōsi, bhér_rmōni</i>
2 "	<i>ddhyě'si, ddhyě'ni</i> (<i>éddhyōsi, éddhyōni</i> ?)	<i>bhér_rdhyōsi, bhér_rdhyōni</i>
3 "	<i>édnti</i>	<i>bhér_rnti</i>
1 d.	<i>dyě'si, édyōsi</i>	<i>bhér_ryōsi</i>
2 "	<i>édto</i>	<i>bhér_rto</i>
3 "	<i>dtés</i>	<i>bhér_rtes < bh_rrtés</i>
Act. Impf. 1 s.	<i>ē'dm < e-édm</i>	<i>ēbh_rm < e-bhér_rm</i>
2 "	<i>ē'ds < e-éds</i>	<i>ēbh_rs < e-bhér_rs</i>
3 "	<i>ē'dt < e-édit</i>	<i>ēbh_rt < e-bhért</i>
1 p.	<i>ē'dmes, ē'dmen < e-dmés,</i> <i>e-dmén (e-édmos,</i> <i>e-édmon?)</i>	<i>ēbh_rmos, ēbh_rmon</i> <i>< e-bhér_rmos, e-bhér_rmon</i>
2 "	<i>ē'ddhyes, ē'ddhyen</i> <i>< e-ddhyés, e-ddhyén</i> <i>(e-éddhyos, e-éddhyon ?)</i>	<i>ēbh_rdhyos, ēbh_rdhyon</i> <i>< e-bhér_rdhyos,</i> <i>e-bhér_rdhyon</i>
3 "	<i>ē'dnt < e-édnt</i>	<i>ēbh_rnt < e-bhér_rnt</i>
1 d.	<i>ē'dyēs < e-dyě's, e-édyōs</i>	<i>ēbh_ryōs < e-bhér_ryōs</i>
2 "	<i>ē'dtom < e-édtom</i>	<i>ēbh_rtom < e-bhér_rtom</i>
3 "	<i>ē'dtām < e-éditām (e-dtā'm?)</i>	<i>ēbh_rtām < e-bhértām</i> <i>(ēbh_rtā'm?)</i>
Mid. pres. 1 s.	<i>dēt, édoi</i>	<i>bhér_ri (ai : oi)</i>
2 "	<i>dset, édsoi</i>	<i>bhér_rsai (ai : oi)</i>
3 "	<i>dteí, édtoi</i>	<i>bhér_rtai (ai : oi)</i>
1 p.	<i>dmédh_ri, édmódh_ri</i>	<i>bhér_rmodh_ri (ai : oi)</i>
2 "	<i>ddhyet (éddhyoi?)</i>	<i>bhér_rdhy_ri (ai : oi)</i>
3 "	<i>dntei, édntoi</i>	<i>bhér_rntai (ai : oi)</i>
1 d.	<i>dyédh_ri, édyódh_ri (ai : oi)</i>	<i>bhér_ryódh_ri (ai : oi)</i>
2 "	<i>édtoi</i>	<i>bhér_rtai (ai : oi)</i>
3 "	<i>dtei</i>	<i>bhér_rtai (ai : ei)</i>
Mid. impf. 1 s.	<i>ēdi < e-édi</i>	<i>ēbh_r < e-bhér_r (a : o)</i>
2 "	<i>ē'dso < e-édso</i> <i>ē'dthēs < e-dthē's</i>	<i>ēbh_rso < e-bhér_rso</i> <i>ēbh_rrthēs < e-bhértthēs</i> <i>< e-bh_rrthē's</i>
3 "	<i>ē'dto < e-édto</i>	<i>ēbh_rto < e-bhértto</i>

1 p.	$\bar{e}'dmedhi < e\text{-}dmédhi$ ($e\text{-}édmodhi?$)	$\acute{e}bh_{\text{r}}.modhe < e\text{-}bhér_{\text{r}}.modha$ ($\text{ə} : o$)
2 "	$\bar{e}'ddhye\text{-}m < e\text{-}ddhyé\text{-}m$ ($e\text{-}édh\text{y}o\text{-}m?$)	$\acute{e}bh_{\text{r}}.dh\text{y}_{\text{e}}\text{-}m < e\text{-}bhér_{\text{r}}.dh\text{y}_{\text{e}}\text{-}m$ ($e : o$)
3 "	$\bar{e}'d\eta to < e\text{-}éd\eta to$	$\acute{e}bh_{\text{r}}.nto < e\text{-}bhér_{\text{r}}.nto$
1 d.	$\bar{e}'d\text{y}edhi < e\text{-}d\text{y}édhi,$ $e\text{-}éd\text{y}odhi$	$\acute{e}bh_{\text{r}}.\text{y}odh\text{ə} < e\text{-}bhér_{\text{r}}.\text{y}odha$ ($\text{ə} : o$)
2 "	$\bar{e}'dt\ddot{o}m < e\text{-}éd\ddot{t}\ddot{o}m$	$\acute{e}bh_{\text{r}}.t\ddot{o}m < e\text{-}bhér_{\text{r}}.t\ddot{o}m$
3 "	$\bar{e}'dt\ddot{a}m < e\text{-}éd\ddot{t}\ddot{a}m$ ($e\text{-}dt\ddot{a}'m?$)	$\acute{e}bh_{\text{r}}.t\ddot{a}m < e\text{-}bhér_{\text{r}}.t\ddot{a}m$ ($e\text{-}bh_{\text{r}}.t\ddot{a}'m?$)

Besides the simplest characteristics of the personal endings inferred in the foregoing pages, there are two which do not fall wholly within this category: $*nēi$, $*nōi$ in Rb ($*nə$) in the first sing. subjunct. act. (Ved. *brāvāni*), Rb ($*n_e$) in the second plur. pres. and impf. act. (Ved. *vádathana*, *ā'itana*) and impv. (Ved. *yātána*), Za ($*ni$) in the first and second plur. pres. act. (Kanes. *wahnumēni*, *iyateni*), and Zb ($*n$) in the second plur. impf. act. (Kanes. *iyaten*; cf. also Kuch. third plur. pres. act. *meleṃ ne*); and $*dhēi$, $*dhōi$ in Ra and Rb ($*dhəi$, $*dhə$) in the first plur. pres. mid. (Ved. *hūmāhe*, Gk. *φερόμεθα*), and Za ($*dhi$) in the second sing. impv. act. (Ved. *viddhá*, *pāhí*). The force of these two bases is not fully apparent, but their distribution in verb-terminations suggests that $*nēi$, $*nōi$ was an intensifying (and usually pluralizing) particle, while $*dhēi$, $*dhōi$ was another characteristic of the second sing., perhaps with a middle force as distinguished from the active *s*.

One would have, then, the following distribution of characteristic terminations:

	Singular	Plural	Dual
1	<i>m</i> , vowel (diphthong)	<i>m</i>	<i>y</i>
2	<i>s</i> , <i>th</i> , <i>dh</i> (?), diphthong	<i>t</i> , <i>dh\text{y}</i>	<i>t</i>
3	<i>t</i> , diphthong	<i>nt</i>	<i>t</i>

(With the *t* of the second and third dual cf. the *t* of the second plur. and the *t* of the third sing.)

The various conglomerates considered above would seem, in the light of these characteristics, to have the following distribution and *raisons d'être*:

- 2 sing.: $*\acute{e}i\text{-}sei$, $*ei\text{-}s$ (Na[Sa]Sa, SaZb; OPruss. *saggēsei*, OCSlav. *bereši*, Gk. *φέρεις*), 'double second sing.';
 $*\text{-}thē\text{-}s$ (NbZb; Ved. *ádhatthās*), 'double second sing.';

3 sing.: *-ei-t (SaZb; Gk. *φέρει* < **φέρειν*), 'double third sing.';

1 plur.: *-mē-ni, *-me-ni, *-me-n (NbZa, SbZa, SbZb; Kanes. *wahnu-mēni*, *aummeni*, Gk. *ἐσμέν*, *ἡμεν*), 'we indeed' ('we ourselves?');

*-mē-s, *-me-si, *-me-s (NbZb, SbZa, SbZb; OHGerm. *beramēs*, Ved. *yājāmas(i)*, Dor. *φέρομες*, *ἡμες*), 'we and thou (active)';

*-me-dhāi, *-me-dhə, *-me-dhi (SbRa, SbRb, SbZa; Ved. *hūmdhe*, Gk. *ἡμεθα*, Ved. *dvṛṇīmahi*), 'we and thou (middle)';

2 plur.: *-te-na, *-te-ni, *-te-n (SbRb, SbZa, SbZb; Ved. *ā'itana*, Kanes. *iyateni*, *iyaten*), 'ye indeed' ('ye yourselves?');

*-te-si, *-te-s (SbZa, SbZb; OIr. *berthe* < **bhēretesi* [?], Lat. *agitis* < **agetes* [?]), 'ye and thou especially';

*-s-dhyā (ZbRb; Gk. *ἡσθε*, *ἐπισθε*), 'thou and ye especially';

*-dhya-m, *-dhyā-m (SbZb, RbZb; Ved. *ārādhvam*, *ājuśadhvam*), 'ye and we';

3 plur.: *-ntei, *-nto, *-nti, *-nt (ZbSa, ZbSb, ZbZa, ZbZb; Ved. *bhārante*, *ābharanta*, *bhāranti*, Lat. *ferē-bant*), 'he intensified' (i.e. pluralised) = 'they';

*-ntsi, *-nts (?) (ZbZbZa, ZbZbZb; Kanes. *appanzi* [?], Paelig. *coisatens*), 'he intensified (i.e. pluralised) and thou' = 'they';

1 du.: *-ye-si, *-ye-s (SbZa, SbZb; GAv. *usvahī*, Ved. *cārāvas*), 'we two, of whom thou (active) art one';

*-ye-dhāi, *-ye-dhə, *-ye-dhi (SbRa, SbRb, SbZa; Ved. *dādvahe*, *sacevahi*, *gānvahi*), 'we two, of whom thou (middle) art one';

2 du.: *-to-s (SbZb; Ved. *hathās*), 'ye two, of whom thou (active) art one';

*-tā-m, *-to-m (NbZb, SbZb; Ved. *ārabhethām*, *ābhavatam*), 'ye two, of whom I am one';

3 du.: *-te-s (SbZb; Ved. *hatās*), 'they two, of whom thou (active) art one';

*-tā-m, *-to-m (NbZb, SbZb; Boeot. *ἀνελέρων*, Ved. *ārējetām*, GAv. *asrvātām*, YAv. *ḡsatām*, 'they two, of whom I am one'.⁶³

The simple forms without conglomerates, i.e. those expressing dual or plural alone with neither inclusive nor exclusive connotations, are seen in the following types: 1 plur.: OPruss. *asmai*, Lith. *ėsme*; Czech

⁶³ One may suspect that this *m* appears also in the impv.: 2 sing. act. Gk. (aor.) *λῖσον*, Dor. *εἶπον*; 2 du. act. Ved. *pātām*, *jāyatām*, Gk. *ἴτον*, *φέρειν*; 3 du. act. Ved. *pātām*, *jāyatām*; Gk. *ἴτων*, *φερέτων*; 3 plur. act. Gk. *ἔστων*, *φερόντων*, Lesb. *στελχοντων*; 3 sing. mid. Ved. *duhām*, GAv. *uāma*; Ved. *vārdhatām*, YAv. *vārḡzyata*, OPers. *varnavatām*; 2 du. mid. Ved. *vārdhethām*, Gk. *ἡσθον*, *φείσθον*; 3 du. mid. Ved. *jīhatām*, Gk. *ἡσθων*, *φείσθων*; 3 plur. mid. Ved. *pāvantām*, GAv. *xšōnta*, Gk. *ἡσθων*, *φείσθων*, Lesb. *ἐπιμέλεισθων*.

neseme; OIr. *beram*; Goth. *qīþaima*; Ved. *ápāma*, *ābharāma*; 2 plur.: Gk. *ἐστέ*, *ἐπέπετε*;

1 du.: Lith. *ėsva*, Ved. *hánāva*; Goth. *silaiwa*; 2 du.: Lith. *ėsta*; Ved. *ā'sāthe*; 3 du.: OCSlav. *jeste*; Ved. *súvāte*.

The exclusive forms seem to be: 1 plur.: Gk. *φεπομεν*; 2 plur.: Ved. *ā'itana*; and the inclusive, 1 plur.: Ved. *yājāmās(i)*, *hūmāhe*; 2 plur.: OIr. *berthe* (?) Gk. *ἡσθε*, Ved. *ārādhvam*; 1 du.: GAv. *usvahī*, Ved. *dddvahē*; 2 du.: Ved. *hathās*, *ārabhethām*, *ābhavatam*; 3 du.: Ved. *hatās*, Boeot. *ἀνελέρων*, GAv. *asrvātām*.

The presence of exclusive and inclusive forms in the first plur. (and du.) of personal pronouns and in verbs is frequent in American, Melanesian, Tibeto-Burman, Muṇḍā, Dravidian, North Caucasian, etc.;⁶⁴ but its existence in Indo-European seems not to have been suggested hitherto.

Finally, the personal ending characterized by *r*, to which much study has been devoted,⁶⁵ calls for some attention. The distribution of forms is as follows:

Vedic: second and third du. perf. ind. act.; third plur. impf., aor., perf., pluperf. ind. act., and pres., perf. opt. act.; third plur. pres. and perf. ind. mid.;

Iran.: third du. ind. perf. act.; third plur. aor., perf. ind. act.; third plur. pres. and aor. opt. act.; third plur. pres. and perf. ind. mid., and impv. mid.;

Kuch.: throughout, so far as forms available go;

Kanes: first and third sing. and second and third plur. pres. ind.;

⁶⁴ F. Boas, *Handbook of American Indian Languages* 1. 527, 529, 580-1, 817, 820, 851, 908, 914, etc.; 2. 321, 351, 395, etc., 467-8, 470, 473-4, 575-6, 578, Washington, 1911-22; R. H. Codrington, *The Melanesian Languages* 111-4, 118-9, 122-3, 171-2, 413, 425, 453, 496, 502, 519, 530, 543, 550, Oxford, 1885; S. H. Ray, *Comparative Study of the Melanesian Island Languages* 77, 88-9, 98, 115, 148-9, 157, 159-60, 179, 181, 188, etc., Cambridge, 1926; *Linguistic Survey of India* 3. 1. 36, 289-92, 319, 329-33, 376, 386-7, 433, 435-6, 462, 472; 3. 2. 71, 266, 385; 4. 42, 170, 193-4, 196, 198-9, 293, 312, 356, 414, 418, 452, 460, 462-3, 481, 547, 588, Calcutta, 1909, 1903, 1906; A. Dirr, *Einführung in das Studium der kaukasischen Sprachen* 166, 188, 209, 270, 281, Leipzig, 1928; in general, W. Schmidt, *Sprachfamilien und Sprachkreise der Erde* 327-34, 505-6, 518, 520, Heidelberg, 1926.

⁶⁵ All previous studies are fully discussed by A. W. M. Odé, *De uitgangen met R van het deponens en het passivum in de indoeuropeesche talen*, Haarlem, 1924; see also A. Meillet, 'Sur les désinences en -r', in *BSLP* 24. 189-94 (1924), and *Esquisse d'une histoire de la langue latine* 25-7, Paris, 1928; Edith F. Clafin, 'The Hypothesis of the Italo-Celtic Impersonal Passive in -r', in *LANGUAGE* 5. 232-50 (1929); Hirt, *Grammatik* 4. §71. Both personal and impersonal endings in -r are found in Checheno-Lesghian (Prince N. Troubetzkoy, in *BSLP* 29 [1929]. 160, 164-5).

third plur. impf. ind.; first sing. voluntative; third sing. and plur. impv. (all mid.);

Phryg.: third sing. impf. (in view of the paucity of material, no conclusion as to distribution is warranted);

Osc-Umb.: third sing. and plur. pres. ind. subj.; third sing. fut. perf. ind., impf. and perf. subj.; fut. impv.;

Lat.: throughout in non-periphrastic mid. formations, except in second plur.; third plur. perf. ind. act.;

OIr.: all mid. forms of pres. and pret. ind. and subj.; and simple fut. (except, as in Lat., in the second plur.).

Of all the grades, Zb (*r*) is commonest: Ved. *ūhāthur*,⁶⁶ *ūhātūr* (YAv. *vaočātar*²), *ājuhavur*, *ābhāišur* (GAv. *dar*³, YAv. *aškar*²), *cakrūr* (GAv. *āpharē*), *ācucyavur*, *syūr* (YAv. *hyār*²), *vavrjyūr*; Kuch. *jamantr*, Turf. *kljamtr*, Kanes. *ešer*, *dāir*, Phryg. *ad̄axetop* (sing.),⁶⁷ Arm. *berer* (impf. ind. act.), Lat. *feruntur*, Umb. *terkantur*, OIr. *labritir*, *bertir*).

The grade Za (*ri*) is found in the Kanes. third plur. perf. ind. act. (*ešantari*); the grade Sa (*re*, *roi*) in the third plur. pres. and perf. ind. mid. (Ved. *duhré*, *šére*, YAv. *sōire*; Ved. *cikitré*, YAv. *cāxrare*); the grade Sb (*ré*, *ro*) in the third plur. perf. ind. act. (Kuch. *weñāre*, Lat. *fecēre*, OLat. *dederi*, and perhaps in OLat. *ded(e)ro*),⁶⁸ and once in the third plur. impf. mid. (Ved. *aduhra* [Maitr. Saṃh.]).

Besides the simple *r*, one finds a number of conglomerates in which *r* is the prior member; where, in other words, it seems to be an infix. These conglomerate terminations, which appear only in the third plur., are as follows:

*-*r-ntōm* in the pres. impv. mid.: Ved. *duhratām* (AV);

*-*r-ntei* in the pres. ind. mid.: Ved. *duhrate*, *šerate* (AV., Tait. Saṃh.);

*-*r-nto* in the pres. opt. mid.: Ved. *bharerata*;

*-*r-onto* in the pluperf. ind. mid.: Ved. *āvavṛtranta*;

*-*r-ont* in the perf. ind. act.: OLat. *dederont*, *coiravēront*, Lat. *fecērunt*, *institērunt* (Ital. *fēcēro*, *fēcēron[o]*),⁶⁹ and the impf. and aor. ind. mid., and pres. opt. mid.: Ved. *āšeran*, *āyujran*, *dadāiran*;

⁶⁶ See, most recently, C. Bartholomae, *Zur Kenntnis der mittelliranischen Mundarten*, 6. 75, Heidelberg, 1925.

⁶⁷ Cf. W. M. Calder, 'The Medial Verbal -*r* Termination in Phrygian', in *Journal of the Manchester Egyptian and Oriental Society* 10. 25-33 (1923).

⁶⁸ Against this view, Stolz-Schmalz 305, 338; W. M. Lindsay, *The Latin Language* 531-2, Oxford, 1894; F. Sommer, *Handbuch der lateinischen Laut- und Formenlehre*² 277, Heidelberg, 1914. Kanes. shows an imperatival -*u* in the first sing. voluntative mid. (*arhaharu*; cf. Ved. *mādatu*, *mādantu*, etc.).

⁶⁹ Cf. Lindsay and Stolz-Schmalz *loc. cit.*; Sommer 578-80.

*-*r-am* in the aor. and pluperf. ind. mid.: Ved. *ádṛśram*, YAv. *vaozīrəm*;

*-*r-ām* in the impv. mid.: Ved. *duhrām* (AV.);

*-*r-s* in the perf. ind. and aor. opt. act.: GAv. *čikōitər^oš*, YAv. *sač-yār^oš*;

*-*rə-rei* (reduplication) in the perf. ind. mid.: Ved. *jagrbhriré* (cf. also the OIr. reduplicated forms of the pret. ind., *-lámratúr*, *-mídratar*, *-ferartar*).⁷⁰

Of all these types, the most important seems to be that in which *r* is added, not to another personal ending (or infixed before it), but directly to the verbal base. This is found at the two extremes of the Indo-European area: Indo-Iranian and Kanesian, and Italo-Celtic. Here belong the types of Ved. third plur. ind. mid. *duhré*, *śére*, *sunviré*, and perf. ind. act. *cakrúr*, *jagmúr*, *vidúr*,⁷¹ YAv. third plur. pres. ind. mid. *sōire*, *mravā're*, third plur. perf. ind. act. GAv. *čāxna^r*, YAv. *dādar^o*, and mid. *cāxrare*, and aor. mid. GAv. *dar^o*, YAv. *aškar^o*;⁷² Kanes. third plur. perf. ind. act. *ešer*, *dāir*; Osc. third sing. pres. ind. and perf. subj. *loufir*, *sakraffir*; Umb. third sing. pres. and perf. subj. *ferar*, *ier*;⁷³ OIr. third sing. pres. ind. pass. *berir*, pret.-pres. depon. *-fitir* (Wel. *gwyr*, Corn. *gor*, Bret. *goar*, the phonological equivalent of the Ved. third plur. perf. ind. act. *vidúr*), pret. ind. depon. *-comnocuir*, *-dámair*, *-génair*, *-lámair*, *-ménair*, *-mídair*, *-stasair*, and third plur. pres. subj. depon. *-clorat*.⁷⁴

Taking the evidence as a whole, the writer is at present strongly inclined to feel that the *-r*-endings were originally neither active nor passive, and neither singular, dual, nor plural, but that they were primarily merely impersonal terminations of the third person attached directly to the verbal stem. All differentiation into singular and plural (Ved. *vidúr* : OIr. *-fitir*) arose from the equivalence of 'one says' and 'they say' (also 'it is said'); and the extension to other persons than the third, as well as the use of *r* to indicate the real passive, seems to be of secondary development. The original distinction between the impersonal and the deponent (e.g. Umb. *ferar* : Lat. *fertur*; OIr. *berir*, *-berar* : *labrithir*, *-labrathar*) would appear to have lain in the fact that in the former *r* was added directly to the verb-stem, in the latter to the inflected active.

In Ved. the passive is used, very rarely, in an impersonal sense, as

⁷⁰ Pedersen 2. 386; cf. Thurneysen §699.

⁷¹ Full collection of material in Macdonell §§451, 470, 485 (pp. 337, 347, 358).

⁷² Bartholomae, *GirPh* 1. §121.

⁷³ C. D. Buck, *Grammar of Oscan and Umbrian*² §§238, 2, 239, Boston, 1928.

⁷⁴ Pedersen 2. 319, 385, 386, 388, 405-6; cf. A. Walde, *Ueber älteste sprachliche Beziehungen zwischen Kelten und Italikern* 16 sqq., Innsbruck, 1917.

prá jñāyate 'one finds' (Maitr. Samh.), *sám amyate* 'one binds oneself' (Taitt. Samh.), though it becomes extremely common in Skt.; and the same construction is occasionally found in Gk., as *κινδυνεύεται* 'one runs risk', *παρεσκεύαστο* 'one had made preparation' (Thucyd.).⁷⁵

The most archaic system seems to have been preserved only in Italo-Celt., for the type of Ved. *vidúr* = OIr. *-fitir* 'on sait' had already come to be felt as a plur. in the prehistoric period. Thus one finds in Osc. *Iúviass messimass... sakraffir* 'Iovias medioximas... sacratio'; in Umb. *pone esonome ferar* 'cum in sacrificium feratur', *nosue ier ehe esu poplu* 'nisi itum sit ex hoc populo';⁷⁶ in OLat. *errat animus... vitam vivitur* 'the mind wanders... one leads a life', *itur in antiquam silvam* 'one goes', *amatur atque egetur acriter* 'there's love and bitter want' parallel with *neque ament nec faciant bene* (Plautus, *Pseud.* 272-3); and in Late Lat., as *faciatur, si tibi videtur, et triclinia* 'let one make' (Petron. 71).⁷⁷ This seems to recur in Vulg. Lat. of the Merovingian period, as *reliquas reddebuciones exigebatur* 'one demanded the other taxes', and the rule of the *Doctrinale* of Alexander de Villa Dei (1199), *Matthaem legitur, psalmos erat ante legendum* 'one reads... one should have read'.⁷⁸ It is also noteworthy that this construction appears to survive in Ital. and (rarely) in OSpan., as OItal. *trouaualise stormi e batallie* 'one found storms and battles', Mod. Ital. *si visitò insieme le collezioni* 'one visited the collections together', OSpan. *se lo cercó de sólidas murallas* 'one surrounded it with solid walls'.⁷⁹

Turning to OIr., such passages may be cited as *nímirchói nachgéin* (read, *nímirchói nach n-céin*) *libsi* 'one will not delay me long with you' (Wb. 7^a, 11; Stokes-Strachan, 'I shall not be delayed'), *arnach naurchoised som* 'that one might not hinder him' (Wb. 8^a, 4; Stokes-Strachan, 'that he might not be hindered'); and here belong forms like *tiagar huáin* 'ito de nobis, let one of us go' (Ml. 16^o, 5), *rigthir cuccuib* 'ibitur ad vos, one will go to you' (Wb. 9^a, 23), Mid. Ir. *docúas iarsin... ocus tuccad Etain immach* 'itum est post eos... et E. foras educta est, one went after them,' etc. (*Tochmarc Etáine* 20). From such constructions are

⁷⁵ Delbrück, *Vergleichende Syntaz der indogermanischen Sprachen* 3. §16, Strasbourg, 1900; J. S. Speyer, *Vedische und Sanskrit-Syntaz* §245, do., 1896.

⁷⁶ Buck §239.

⁷⁷ Lindsay 520-1, 523; Stolz-Schmalz 623.

⁷⁸ Examples are given by Jeanne Vieillard, *Le Latin des diplômes royaux et chartes privées de l'époque mérovingienne* 220-2, Paris, 1927. Against the view advanced in the text, see E. Löfstedt, *Philologischer Kommentar zur Peregrinatio Aetheriae* 291-3, 319-20, Upsala, 1911; Stolz-Schmalz 596.

⁷⁹ W. Meyer-Lübke, *Grammaire des langues romanes* 3. §94, Paris, 1900.

formed all OIr. persons of the passive except the third, e.g. 1 sing. *ní-m-tharberar* 'I am not brought' (lit., 'one brings me not'), 2 sing. *arnach-it-r-indarpither* 'lest thou be cast away', 1 plur. *ro-n-mess ní* 'aestimati sumus', 2 plur. *ní-b-iccfiher* 'ye will not be saved'.⁸⁰

One of the main sources of the entire passive voice, which, as is well known, was not Indo-European, must, then, have been the impersonal third, with analogical extensions to the other two persons and to all three numbers.⁸¹

⁸⁰ Pedersen 2. §§589, 3; 624, 2.

⁸¹ Even the Indo-Iran. third sing. aorist 'passive' in *-i* (Ved *ákāri*, GAv. *srāvī*, OPers. *adāriy*) was probably originally middle in force (Delbrück, *Verbum* 181-2; Brugmann, 2. 3. § 622, 2).

SOME CRITICAL NOTES ON OLD NORSE PHONOLOGY

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[The article deals with ten mooted questions, for which cf. the sub-headings, and also attempts to advance linguistic methodology by a criticism of some views of leading writers on Old Norse grammar.]

I. The Imperative Singular Form

a) Of *jan-:ian*-Verbs; *vel:send*

PN**wali* (= Goth. *walei*) > **wali* > **val*, which latter form was displaced by *vel* (with analogical *e=i*-umlaut of *a*) in conformity with all the other forms of the present system with radical vowel -*e*-. The ending -*i* in **wal-i* disappeared before causing umlaut, just as in **wal-i-dō* > *valda*.

Noreen does not explain the type *vel*, and Iversen¹ wrongly derives *vel* from Gothic *walei*. Only Heusler² states that the -*e*- in *vel* is of analogical origin.

Regarding the form *send* Noreen³ says: 'In urn. zeit muss aber (wie aus formen wie *send*, nicht **satt*, 'sende' hervorgeht) eine, vielleicht durch *skapi* und *ligi* belegte, endung -*i* (vgl. got. *walei*, *dōmei*) vorhanden gewesen sein.'

The only real value to this statement is the reference to Goth. *walei*, *dōmei*. These Goth. forms together with the ON forms *hyggiat*: *kveliat*:*teygiattu* (with negative suffix -*at*), etc. are sufficient evidence that *send* must go back to an earlier **sandi* or **sandi*. This renders the reference to the runic forms *skapi* and *ligi* entirely unnecessary, especially since it is not at all certain⁴ that both these forms represent imperatives.

The reference to a form **satt* in this connection serves only to confuse

¹ Cf. R. Iversen, *Norron Grammatikk* (Kristiania, 1923) §139, Anm: '... (jfr. got. *walei* = *vel*, *dōmei* = *dæm*). . . .'

² Cf. A. Heusler, *Aisl. Elementarb.* §345: '... *tel* < **tali* (hier der *i*-Umlaut analogisch eingesetzt). . . .'

³ Cf. A. Noreen, *Aisl. Gramm.* §538. 3.

⁴ Cf. Alexander Jóhannesson, *Gramm. der urnord. Runeninschriften* 110, No. 62.

the reader by mentioning the strong type *statt* < **stand* in which the imperative ending IE -*e* had already been lost in PG times.

Furthermore there is no necessity for referring to an impossible form **satt* < **sand* in order to show that the form *send* is phonetically correct. The verb **sand-jan* contained the *i*-suffix and this suffix must at some time in the oldest stages of the language have existed in the end syllable, whether as *ī* (= Goth. *sand-ei*) or as *ī*.

The existence of the *i*-umlaut in *senda* < **sand-jan* is better evidence that *send* was derived from **sand-i* than the fact that we do not possess a form **satt*.

b) Of *ē*-Verbs

Verbs of the *ē*-conjugation originally preserved this vowel **ē* (Goth. *ai*) > *i* as the imperative singular ending; cf. *vak-i*, *trú-i*, *þeg-i*, etc. Later this ending disappeared, so that finally the prevalent form was without -*i*; cf. *seg*, *haf*, *lif*, etc.

Iversen⁵ explains this loss of ending as due entirely to the influence of the *jan*-verbs. Heusler⁶ says: ' . . . *seg* "sage" (nach *tel*), *haf* "habe" (nach den starken Verba?), danach auch *lif* "lebe" u.a.'

There can be no doubt that the loss of the imperative ending here is due to analogy with other conjugations whose imperative singular is without ending. The question is as to *where* the analogy had its starting point(s).

I believe that the analogy had its inception between *ē*-verbs and verbs of other conjugations whose imperative singular had no ending and whose radical vowel was identical with that of the *ē*-verbs. These verbs, after which the analogy was patterned, fall into two classes, namely *jan*-verbs and strong verbs.

For the *jan*-verbs *seg* (instead of *seg-i*) after the pattern of *tel* is undoubtedly correct. Both the vowel -*e*- and the congruence of meaning ('say, tell') tended to displace *seg-i* by *seg* to conform with *tel* without ending.

Of the strong verbs there are two classes which may have influenced the *ē*-conjugation, namely the second and the sixth ablaut series: cf.

<i>ē</i> -Conjugation		Strong Verb
<i>drúp</i> , <i>grúf</i> , <i>trú</i> , etc.	like	<i>súg</i> , <i>stúp</i> , <i>strjúk</i> , etc.
<i>haf</i> , <i>gan</i> , <i>gap</i> , etc.	like	<i>far</i> , <i>gal</i> , <i>graf</i> , etc.

II. The Suffix -*ere*:-*are*

The suffix -*ere*:-*are* goes back to an older -*arer*⁷:-*erer*⁷ < Goth. -*āreis* <

⁵ Cf. Iversen, loc. cit.

⁶ Cf. Heusler, loc. cit.

⁷ Cf. Noreen §402 and Anm.

Lat.-*ārius*; cf. *vart-ares* gen. sing. 'name of a fish', *mút-ares* gen. sing. 'falcon': *vald-erer* 'commander', etc.

In the older language both forms⁸, *-ere* and *-are*, occur, but *-ere* far more frequently; later on *-are* gradually displaced and finally entirely superseded *-ere* (i.e., *dóm-ari*, in the older language more often *dóm-ere*).

The current view⁹ is that *-ere*, since it is the form prevailing in the oldest texts, represents an older form than *-are*. This cannot be correct since the two forms from the very beginning existed side by side and since *-ere:-are* are direct descendants of *-erer:-arer* which also existed side by side.

Therefore the form *dóm-ere(r)* can be no older than *dóm-are(r)*. The fact that the form *-ere* appears with greater frequency in the older texts does not prove its greater antiquity. Besides, even if *-ere* were the older form, it would be impossible to derive *-ari:-are* (*n*-declension) from *-ere*.

The whole question is clarified if we assume a double development (one with *i*-umlaut and one without) from original *-ārir* according to conditions of stress. When the penult bore a *strong* secondary accent¹⁰ *i*-umlaut occurred (cf. **dóm-ār-ir* > **dóm-ær-ir* > *dóm-er-e(r)*)¹¹, but was not operative if the penult bore a *weak* secondary accent (cf. **dóm-ār-ir* > **dóm-ār-ir*¹² > *dóm-ar-e(r)*).

Of these two forms *dóm-ēr-e* was evidently at first the preferred form since it occurs most often in the older texts. The later preference for *dóm-are:dóm-ari* may perhaps be explained as due to the influence of original *n*-stems where *i*-umlaut of *a* did not occur; i.e., *dóm-are(i)* (instead of *dóm-ere*) in conformity with the type *bar-dage(i):fé-lage(i)*, etc.

III. The Preterite Singular Form *sté:hne* from *stíga:hntíga*, etc.

The type *sté* of the first ablaut series is, of course, derived from **steih*. According to the current view¹³ **steih* represents a phonetically correct form from **steig* < **staig* < **staiga*.

Heusler, however, denies the validity of this theory. He says (*op. cit.*, §86, Anm. 2): 'Die Präterita Sing. zu *stíga*, "steigen" u.ä. müssen **stá* lauten (< **stāh* < **staih* < **staiga*): für **stāh* hat man aber, nach

⁸ Cf. Noreen, loc. cit.

⁹ Cf. Iversen §192.2: Hjalmar Falk, *PBB* 14. 36.

¹⁰ Cf. Noreen §64.

¹¹ Cf. Noreen §151, 6.

¹² Cf. Noreen §151, 1.

¹³ Cf. Noreen §97, 2; Iversen §23, 6; Ferd. Holthausen, *Aisl. Elementarb.* §33.

beit usw., **steih* eingesetzt, und dieses ergab dann *sté*. Nirgends hat germ. -*aih*- oder -*aig*- lautgerecht zu aisl. *é* geführt.'

With the exception of Pipping (see footnote 14), those who hold the current view (Noreen, Holthausen, Iversen) have never attempted to explain this discrepancy **staih* > **steih* (> *sté*) but **aih* > **āh* (> *á*) which Heusler here points out. But this discrepancy is due to the nature of the final *h* in **staih*:**aih*, as I shall in the following attempt to show.

Heusler assumes that **ai* underwent the same development (i.e., **ai* > *á*) before an original PG *h* as before a secondary PN *h* < *g* in final position.

This is by no means certain, for we have here to do with two types of *h* and therefore with two periods of time. It is possible that the contraction *ai* > *ā* before original *h* (**aih* > **āh* > *á*) had already become completed at the time when *g* became PN *h* and that for this reason *ai* before secondary PN *h* (< *g*) was exempted from contraction and therefore underwent the regular development¹⁴ *ai* > *æi* > *ei* before the final *h* was lost (**staih* > **stæih* > **stæih* > **steih* > *sté*).

The assumption that *ai* in ON underwent a different development before original *h* than before secondary *h* finds support in WGerm. parallels. In OHG, e.g., *ai:au* regularly became contracted to *ē:ō* before original *h* but never before secondary OHG *h* < *k*: cf. Goth. *taih* = OHG **zaih* > **zeih* > *zēh*: Goth. *aih* = ON **aih* > **āh* > *á*: Goth. *tauuh* = OHG **zauh* > **zouh* > *zōh*: ON **flauh* > **flouh* > **fló*; but ON *eikr*: OHG *eih*; ON *reykr*: OHG *rouh*.

What is to prevent our assuming that before secondary *h* *ai* became *ei* (before *h* was lost) in ON exactly as in OHG (cf. ON **staig* > **staih* > **steih* [> *sté*]: OHG *eih* < **aik*-) especially since in both languages *ai* became contracted before primary *h* (cf. Goth. *taih* > OHG **zaih* > **zeih* > *zēh*; Goth. *aih* = ON **aih* > **āh* [> *á*])? At any rate, the parallel between the ON and the OHG casts a shadow of doubt upon Heusler's assertion that 'nirgends hat germ.-*aig*- lautgerecht zu aisl. *é* geführt'. It is self-evident that Germ. -*aih*- never became OIcel. *é*.

¹⁴ This is also Pipping's view; cf. Hugo Pipping, *Inledning till studiet av de nordiska språkens ljudlära* 179, §67d. Pipping, however, does not bring in the WGerm. parallels in support of his theory.

It should be noted that *ai* was not contracted to *á* before secondary ON *r* < *R* (cf. Goth. *maiza* > ON *meiri*) but only before original *r* (cf. Goth. *áir* > ON *ár*). This fact proves that the contraction *ai* > *á* was already completed when *z* had become *R* > *r* and lends support to the theory that this contraction was likewise completed before *g* had become *h*; cf. **aih* > *á*: **air* > *ár* with **staig* > **staih* > **steih* [> *sté*]: **maiza* > **maiRa* > *meiri*.

The fact that *au* was contracted to *ō* before both original and secondary *h* (cf. **flauh* > *fló*: **saug* > **sauh* > *só*) does not invalidate my hypothesis, inasmuch as here no other contraction (*au* > *ou* > *ō*) is possible, whereas *ai* elsewhere did become *ei* (cf. **stain-aR* > *steinn*), and hence the possibility of the contraction *é* < *ei* < *ai* as well as *á* < *ai*.

IV. ON *k-* in *kvistr* 'branch': *kvísl* 'fork, bend (in a river)'

The *k-* in *kvistr*:*kvísl* obviously represents a variant of *t-* in PG **twis* 'twice, double': cf. *twistr* 'sad' (cf. Germ. *entzweit*): Germ. *zwist* 'quarrel'; *twistr* 'deuce (in cards)'; *kvísl* = OE *twisla*: OHG *zwisila* (*zwīsilā*) 'fork, bend (in a river)', i.e., 'a doubling'. This *k-* in *kvistr*:*kvísl* must be either primary or secondary.

There is no convincing evidence that the *k-* in *kvistr*:*kvísl* is of primary (PG) origin. To postulate a PG root **kwis* for these words, as do Falk and Torp¹⁵, is merely begging the question, for we have absolutely no evidence of a root **kwis* = **twis* in any of the other Germanic languages. The hypothesis that ON *kvista* 'die Zweige abhauen' (cf. *kvistr* 'Zweig') is identical with Goth. [*fra*]-*qistjan*¹⁶ 'die Zweige abhauen' > 'verderben' is purely fantastical; the derivation of Goth. [*fra*]-*qistjan* is still uncertain.¹⁷

On the other hand, there is positive evidence that the *k-* in *kvistr*:*kvísl* represents a secondary, specifically ON development, as Heusler¹⁸ points out; namely, *k-* < *ga-t-* (i.e., **ga-twis-* > *kwis-*).

Heusler says: 'In *kvísl* "Flussgabelung" scheint *ga-t-* zu *k-* verschmolzen zu sein: vgl. ahd. *zwīsilā* "Gabel".' Why Heusler here says 'scheint *ga-t-* zu *k-* verschmolzen zu sein' instead of '*ist*. . . verschmolzen' is not quite clear to me, for if *k-* here represents an original *g-*, its character as a surd can be explained on no other ground than by virtue of assimilation with *t*; i.e., **ga-t-* > **kt-* > *k-*.

The extent to which the PG prefix *ga-* has been preserved in ON was first brought to light in 1895 by Elis Wadstein in his article entitled 'Nordische Bildungen mit dem Präfix *ga-*', *IF* 5. 1-32. Thru Wadstein's efforts many old etymologies have had to be discarded; cf. notably *gista*¹⁹ < **gestian* supposed to be connected in ablaut relation

¹⁵ Cf. Falk and Torp, *Norw.-Dän. Etym. Wtb.* 1. 607-8, under *Kvist* I, II: 'Zugrunde liegt die germ. wurzel **twis*: siehe *tvende*. Dieses **twis*, wozu **kwis* eine sekundäre nebenform ist, gehört zum zahlwort *to*. . . .'

¹⁶ Cf. H. Sperber, *Wörter u. Sachen* 6. 31f.; E. Zupitza, *Die germ. Gutturale* 87, Nos. 19, 20.

¹⁷ Cf. S. Feist, *Etym. Wtb. der got. Sprache*² 292.

¹⁸ Cf. Heusler §125, Anm.

¹⁹ Cf. Noreen, *Urgerm. Lautlehre* §13, p. 51.

with *gestr* (**gast-iR*). The assumption of an ablaut relation between these two words is rendered entirely unnecessary if we assume with Wadstein (31) *gista* < **ga-wistōn* (sic! for **ga-wistjan*): cf. *vista*:*vist*. But Wadstein overlooked the group *kvistr*:*kvisl* which, as Heusler points out, should belong to the *ga*-category.

V. The Adverb *ella* 'otherwise, else'

Ella < *elliga*²⁰ = Goth. *alja-leikō*; cf. *hardla* < *hardliga*, *varla* < *varliga*.

Feist²¹ gives under Goth. *alja* both ON *ella* and OE *elles*. This is misleading since the second *l* in these last two words is of different origin. In ON *ella* the second *l* represents the *l* of the suffix *-liga* = Goth. *-leikō*, whereas the second *l* in OE *elles* represents a WGerm. gemination by virtue of the original *j* after a short syllable, i.e., **alj*- > OE *ell*-. In ON such a gemination was restricted to *g* and *k*.

Fick²² does even worse by ON *ella*, for he represents it as a direct derivative of Goth. *aljaleikō*. He says: '*alja* alius. . . . an. in *elligar*, *ellor* (sic!), *ella* (= g. *aljaleikō*-(s)).' He has omitted the form *elliga* from which *ella* is derived; *elliga* represents the equivalent of Goth. *aljaleikō*.

Fick's statement should read: '*alja* alius. . . . an. in *elligar* > *ellar*; *elliga* > *ella* (= g. *alja-leikō*-(s)).'

VI. The so-called *g-k*-umlaut

The so-called (combined palatal) *g-k*-umlaut occurs only when short *a* of the radical syllable is immediately followed by the palatal consonants *-g*, *-k*, *-ng* plus *i* > *e* (not derived from original Germ. *i*) of the end syllable: thus, e.g., **dagai* > **dagē* > **dage* > *degi*(*e*); Lat. *draco* > MLG *drake* > ON *dreki*(*e*); **fanganaR* > **fanginaR* > *fenginn* > *fengenn*.

This type of combined palatalization (peculiar to ON alone) took place at a time when a secondary *i* of the end syllable (without the aid of these intervening palatal consonants) could not cause palatalization; cf. **hanæ* > *hani*²³(*e*) but **dagē* > *degi*²³(*e*).

If, however, the *i* of the end syllable represents an original Germ. *i*,

²⁰ The form *el-liga* was reduced to *el-la* not through any phonetic process but as the result of contamination between the suffix *-a* (< Goth. *ō*) and the suffix *-liga* (< Goth. *-leikō*). See J. Sverdrup, *Arkiv* 27. 181 ff.; A. Kock, *ib.* 28. 178 ff.

²¹ Cf. Feist 27.

²² Cf. A. Fick, *Vgl. etym. Wtb. der indo-germ. Sprachen*⁴ 22, under *alja*.

²³ The chronology of the vowels *-i*:*-e* of the end syllable in *han-i* and *deg-i* is just the reverse of that which I have given; i.e., **dag-ē* > **dag-e* > *deg-i* > *deg-e* but **han-æ* > *han-e* > *han-i*. I have, however, preserved the order *-i*:*-e* for both words because the combined palatalization did not take place until *e* had become *i*.

then regardless of the intervening palatal consonants in question we have a case of simple *i*-umlaut (common to both North and West Germ.): cf. Goth. *ragin* = ON *regin*: OS *regin*-; Goth *fagin*-[ōn] = ON *feginn*: OE *fægen* (but **dagē* > ON *degi*: OHG *tage*).

From the viewpoint of ON we may designate the latter type of palatalization as 'primary *i*-umlaut', the former type as 'secondary *i*-umlaut'.

The listing of these *two* different processes of palatalization (*a* > *e*) under *one* heading (without separate categories for each) is confusing and unscientific, for it leaves the impression that primary *i* (= Germ. *i*) > *e* would *not* have caused palatalization (*a* > *e*), i.e., primary *i*-umlaut, unless the palatal consonants in question had intervened.

Thus, for instance, Noreen under the common head of 'Palatalumlaut' includes²⁴ side by side examples such as *dege*: *dreke* (secondary *i*-umlaut) and *fegenn*: *regen* (primary *i*-umlaut). But the 'Palatalumlaut' would have occurred in the type *fegenn*: *regen* regardless of the intervening consonant *-g-* (cf. OE *fægenn*: OS *regin*-); therefore this type does not belong under the common heading of 'Palatalumlaut' (§73) but under *i*-umlaut (§63). Under this latter heading Noreen quotes, for example, *ketell* = Goth. *katils*, which is exactly what occurred in *regen* = Goth. *ragin*. In *regen* < *regin* = Goth. *ragin* the intervening *-g-* had nothing to do with the palatalization (cf. OS *regen*-), whereas in *degi* < **dagē* the palatalization could *not* have occurred without the combined influence of the secondary *i* of the ending plus the palatal consonant *-g-*; cf. *degi*: OHG *tage*; **hanæ* > *hani*: OHG *hano*.

Also Iversen is guilty of the same confusion, for although he correctly states²⁵ the principle of combined palatalization, he includes as an example of this process the word *regin* (= Goth. *ragin*) which, as shown above, does not belong here.

Heusler²⁶, on the other hand, has escaped this pitfall, if we may accept his derivation of *lenge* < **langē*: 'Suffix urn. *-ē* wie in *úte* "draussen" u.a.' But *lengi*(*e*) may be from **langīn*,²⁷ adv. subst. acc. (cf. Goth. *laggei*), in which case the radical vowel *e* < *a* represents primary *i*-umlaut (cf. *speki* < **spakīn*: *elli* < **alpīn*).

²⁴ Cf. Noreen §74.

²⁵ Cf. Iversen §15.

²⁶ Cf. Heusler §64.

²⁷ Cf. Falk and Torp 1.675, under *Længe*; Alexander Jóhannesson, *Die Suffixe im Isländischen* §45.5

VII. The *a*-umlaut

Heusler²⁸ states that the diphthong PG *eu* remained exempt from the influence of *a*-umlaut except before dentals, *h*, and *m*. As an example of this he includes the word *tryggr* < **triūwaR* alongside such words as *liúga:siúkr*, etc.

The example *tryggr* does not belong here for the reason that the original combination *eyu* > *iūu* had already become *iggu* before the time when the *a*-umlaut had developed, i.e., during the Common Goth.-Scan. period; cf. ON *tryggr*:Goth. *triggws*. It was not the original PG diphthong *eu* but PN *i* which was exempted from *a*-umlaut; cf. PG **treūuaz* > Goth.-Scan. **triūuaz* > **triggw-az* > PN **triggwaR* > *trigguR* > ON *tryggr*:Goth. *triggws*. Evidently Heusler was led into this inaccuracy by deriving *tryggr* directly from **triūwaR* instead of through the intermediate stage **triggwaR*.

A similar confusion in phonetical chronology obtains in the current view as to the *a*-umlaut of *u* > *o*:*i* > *e* before original *r*. For instance, in all our ON grammars are listed under the head of *a*-umlaut such examples as *orta* (< Goth. *waúrhta* < PG **wurhtido*):*verr* (< Goth. *waír* < PG **viraz*; cf. Lat. *vir*):*horn* (< Goth. *haúrn* < PG **hurna*), etc.

The assumption is that the *a* of the end syllable caused the radical vowels PG *u*:*i* to become *o*:*e* in ON.

This assumption, however, seems to me entirely unwarranted because of the fact that this phonetic change *u* > *o*:*i* > *e* before *r* (which is here attributed to *a*-umlaut) had already occurred ('altgerm. Brechung') previous to the time when the *a*-umlaut had developed, as the corresponding vowels in the Goth. words clearly show. There is absolutely nothing to indicate that the radical vowels *o*:*e* in these ON words are not on a level with the corresponding Goth. vowels. The fact that *a*-umlaut of *u*:*i* resulted in *o*:*e* does not prove that this was the case here, for what is to prevent our assuming that ON *o*:*e* represents a direct inheritance from the Common Goth.-Scan. period (ON *o*:*e* = Goth. *aú:ai*) just exactly as does ON *ggw* (= Goth. *ggw*) < PG *yu*? There is absolutely no evidence that the Goth. 'consonantal breaking' *u* > *aú:i* > *ai* before *r* occurred subsequent to the time of separation from the North Germ. languages. Hence it is far more likely that the *a* of the end syllable in these ON words had nothing to do with the phonetic change *u* > *o*:*i* > *e* of the radical vowel. Here *o* and *e* remained unaffected by the vowel *a* of the ending, a simple case of 'Vokalharmonie'.

²⁸ Cf. Heusler §49: 'Der Diphthong *eu* verrät *a*-Umlaut zu *eo* (> *ió*) im allg. nur im Westnord., und zwar, ähnlich wie im Altoberdeutschen, nur vor Dentalen, *h* und *m*'.

In view of the priority of the Goth. 'consonantal breaking' the burden of proof in this question lies with those who profess the orthodox view.

VIII. *Jór* < **ehwaR*: *a*-breaking or *u*-breaking?

In favor of *a*-breaking Noreen²⁹ **ehwaR* > **iahuR* > **iāuR* > *iór*' and Pipping³⁰ **eXwaR* > **iaXwaR* > **iāwaR* > **iā-uR* > *iór*.'

In favor of *u*-breaking Heusler³¹ **ehwaR* > **iōhuR* > *iór*.'

Heusler does not make it clear why **ehwaR* was not subject to *a*-breaking (i.e., **ehwaR* > **iahwaR*) yet assumes that later *u* < *w* caused *u*-breaking (i.e., **ehwaR* > **ehuR* > **iōhuR*).

Breaking must have occurred, and since there is no reason why the breaking should not have occurred before *w* became *u*, preference must be given to the theory of *a*-breaking (Noreen-Pipping).

On the other hand, Noreen does not explain why *a*-breaking should have occurred in **ehwaR* > **iahwaR* but not in the type **sehwan* > *séa* > *sjá*.

The only answer to this is that in **sehwan* > **sehwā* > *séa* (> *sjá*) the nasalized *ā* of the end syllable retarded the *a*-breaking to such an extent that it did not occur before the time when *hw* was lost, whereas in **ehwaR* the *a* of the end syllable was not nasalized, hence breaking took place before the time when *hw* was lost.

We know that nasalized *ā* of the end syllable entirely prevented *a*-breaking in a *short* syllable (cf. *gefa* < **geþan* but *gjafari*), hence nasalized *ā* must have retarded the breaking in a *long* syllable.

To this view Pipping virtually assents in his explanation³² of **seχwan* > **sēwan* > *siá*: 'Hermed är det icke sagt, att *χ* föll, innan brytning verkats av ett stabilt *a*, som ingick exempelvis i ändelsen -*aR* < -*ōR*. Ty det är möjligt, att ändelsevokalens *nasalering* fördröjde brytningens inträde. Det är sålunda tänkbart, att pluralen av **eχwaz* "häst" samn. lydde **eχwōz* > **iāwaR*.'

IX. *Vixl:uxi*

The *x* is from original *hs* and the short radical vowels *i:u* show that *hs* became *x* (= *ks*) before the time when *i* > *é* and *u* > *ó* as, e.g., in **riht-jan* > *rétta*: **fluht-an-* > *flótti*.

Both Heusler's³³ statement: 'Da hier *i* und *u* bewahrt sind, fällt der

²⁹ Cf. Noreen §106.

³⁰ Cf. Pipping 135, 137.

³¹ Cf. Heusler §79. Heusler writes *io* (with dot beneath *o*) = original *io* (*u*-breaking of *e*).

³² Cf. Pipping 177, §66k, 5.

³³ Cf. Heusler §163.

Übergang vor den Lautwandel o. §86', and Noreen's³⁴ statement: 'Sonst wären ja formen wie *uxē* "ochs", *vixl* "wechsel" unmöglich', are misleading inasmuch as they imply that only the unbroken vowels *i:u* (not *e:o*) prove the priority of *hs>ks = x* over *ih>eh>é:uh>oh>ó*. These statements are correct only in so far as *uxi:vixl* contain a short radical vowel and not *é:ó*.

It is not at all certain that in *vixl:uxi* PG *i:u* are retained, as Heusler assumes. As shown above (VII, *a*-umlaut), *i:u* before original *h* were broken to *e:o* during the Common Goth.-Scan. period.

We may therefore assume **uhsan->*ohsa* = Goth. *aúhsa>oxi*. It is significant that Larsson³⁵ records only the form *oxi* (not *uxi*). The form *oxi* may, therefore, represent the phonetically correct form, whereas *uxi* may be explained as a later analogical formation after the pattern of the plural *yxn<*uhsniR* with radical vowel *u*.

Similarly we may assume **wihsl-a* (neut. *ja*-stem) *>*wehsl>*vexl*. Under the influence of the verb *višla<*wexl-jan<*wehsl-jan* the substantive form **vexl* was replaced by *vixl*; cf. OE *wizlan* = ON *višla*: OHG *wehsal* = ON **vexl*.

X. The Form *brá*, Preterite Singular of *bregða*

Neither Heusler's supposition³³ **bragð>*brahþ>brá*, nor the earlier current³⁷ view **brah>brá* is satisfactory.

A form **brahþ* would have given **bráþ*, not *brá*. While the disappearance of the *h* before *þ* is quite regular (cf. **faihiðō>*fāhþa>fāða*), there is no way of explaining the disappearance of the final *þ*; cf. *trahþ:bahþ*, etc.

There is no reason to believe that the dental suffix *-ð* was lacking in the preterite singular stem (**brah>brá*) and that we must, therefore, separate *brá* (*>*brah*) from WGerm. **bragð* (*>OE brægd:OS bragd*). On the other hand, it is far more likely that ON here in common with WGerm. extended the *ð*-(present) suffix throughout the whole verbal system:

ON *bregða* **bragð* : *brugðum* *brugðinn*

W. Germ. OS *bregða* *bragd* : *brugdun* *gi-brogdan*

PN **bragð>*brahþ* was displaced by **brah>brá* after the pattern of **frah>frá*; **wah>vá*; **lah>lá* etc.; the point of contact being the

³⁴ Cf. Noreen §222, Anm. 3.

³⁵ Cf. Ludvig Larsson, *Ordförrådet i de älsta isländska handskrifterna*.

³⁶ Cf. Heusler §178, Anm. 2: 'Urn. *bragð* "schwäng" wurde wohl zu **brahþ*, dann zu *brá*'.

³⁷ Cf. Iversen §121, 1: '... her er pres. stammen utvidet med *ð* ("dental"-presens), mens grunnstammen viser sig i pret. sing. *brá* (*<*brah*, §30, 1).' Similarly Holthausen §239, 3. Noreen does not explain the form *brá*.

radical vowel *a* plus *h*. This analogy resulted in the loss of the final *-þ* in **brah-þ*, which cannot be explained on phonetic grounds.

The form *brá* is derived from **brah*, but **brah* does not represent the original form. The original form **bragð* (= WGerm. **bragð*) > **brahþ* gave way to **brah* in conformity with the preterite singular form of the fifth ablaut series where radical vowel *a* plus *h* > *á* was a regular phonetic process. Such was not the case with the 3rd ablaut series, to which *bregða*:**bragð* belongs.

CORRIGENDUM. In LANGUAGE 4.109-10 I attempted to show that Goth. *stōþ* < PG **stōð*.

I neglected to mention, however, the form *stōþ-uh*, J. 18. 5, in which the *þ* appears unchanged in intervocalic position.

The form *stōþ-uh* militates against my hypothesis in favor of Streitberg's¹ theory *stōþ* = PG **stōþ-*, inasmuch as *elsewhere* in intervocalic position original *ð:b* are always kept strictly distinct² from original *þ:f*.

For this reason it is not likely that the *þ* in *stōþ-uh* is due to the influence of the independent word *stōþ*. There is no reason why we should not consider the forms *qab-uh* (from *qibān*) and *stōþ-uh* on a level with each other.

¹ Cf. W. Streitberg, *Got. Gramm.*⁴. §133; also Hermann Collitz, 'Das schwache Präteritum als Mischbildung', *PMLA* 43. 598-9 (1928).

² Cf. W. Streitberg, 'Gotica (1. *z b d* im Auslaut)', *IF* 18. 392: 'Kein einziger Beleg für *b d* aus altem *f þ* ist vorhanden. Ursprüngliches *f* und *þ* und ursprüngliches *ð* and *ð* sind vielmehr überall streng unterschieden.'

BOOK REVIEWS

Syllabaire Hittite Cunéiforme; Manuel de la Langue Hittite I. Pp. vii + 40 plates. By LOUIS DELAPORTE. Paris: Maisonneuve, 1929.

Forrer's Hittite sign list in the first volume of *Boghazköi-Texte in Umschrift* (Leipzig, 1922) has done invaluable service in a period when many mature Indo-Europeanists as well as younger men have had to work their way into the intricacies of cuneiform writing as practiced by the Hittites. Without this list the labor entailed by the task would have been immensely greater, and those of us who have been largely self-taught would have made many more errors than we have. But seven years is a long time in the history of so young a science. A great deal has been learned since 1922, and Delaporte has incorporated much, if not quite all of it, in his new sign list.

Furthermore Forrer's system of transcription is sadly out of line with that employed by other scholars. Those who are familiar with the subject make the necessary adjustments automatically; but the beginner, particularly if he knows little Assyrian, is needlessly confused. The most serious of Forrer's infelicities are these: (1) He distinguishes between *b* and *p*, *d* and *t*, *g* and *k* and *q*, although the Hittites clearly did not, and although other scholars range all signs which in Sumerian and Assyrian have values including *b*, *d*, *g*, or *q* with those for *p*, *t*, and *k* respectively. The values *bad* and *gad* are, to be sure, more natural than *pat* and *kat* from the point of view of Sumerian, but in Forrer's sign list they have caused no little difficulty to beginners in Hittite. If only *bad* and *pat*, *gad* and *kat*, had been assigned the same alphabetic position, the trouble would have been avoided without sacrifice of scientific accuracy. (2) Forrer accepted Weidner's theory that certain signs carried the value *o*, and that throws certain phonetic values in his sign list out of line with everything else the student is likely to meet. Forrer himself does not use *o* in his ordinary transcriptions. (3) Forrer also disagrees with other Hittite scholars in his phonetic interpretation of many ideograms, e.g. he writes *Iz* where others write *GIŠ*, *Tur* for *DUMU*, etc. Such disagreement is perhaps inevitable, and Forrer might well claim that if uniformity were to be aimed at it would have been easy for other scholars to fall into line with the one published sign

list. We are not interested, however, in fixing blame, but only in stating the facts.

In all of the above respects Delaporte's new sign list marks a great improvement. It becomes at once an indispensable tool for all Hittite scholars, and the only satisfactory introduction to Hittite cuneiform writing. Its usefulness for this latter purpose is greatly increased by an appended list of the relatively few symbols which have a phonetic value in Hittite.

It is a pity that Delaporte has omitted two useful features in Forrer's list, namely the classical Assyrian forms of the several signs, and the cross references from the list arranged by form of the signs to the alphabetic list. On account of these features and for purposes of checking, Forrer's book must still lie at one's elbow.

E. H. STURTEVANT

Altlettische Sprachdenkmäler in Faksimiledrucken. Edited by AUGUST GÜNTHER. Two volumes: pp. 24 + 312 and 14 + 518. Heidelberg: Winter, 1929.

The two volumes contain in facsimile certain old Lettish documents, prefaced with biographies of the authors and bibliographic data.

Georg Elgers (1585-1672), a native of Livland, became a Jesuit priest and toward the end of his life was the Superior of his Order at Dünaberg. He translated the Gospels for the Sundays and most of the special saints' days, which were printed by the Jesuit Press at Vilna in 1672. A copy now in the Nationalbibliothek at Vienna is the basis for the present reproduction (1.1-242).

Peter Kanis, latinized as Petrus Canisius (1521-97), was a native of Holland. He studied in Germany, entered the Jesuit Order, and passed his life in German-speaking lands, dying at Freiburg in Switzerland, where he had been stationed nearly twenty years. In 1552-5, while at Ingolstadt, he composed a Catechism for persons of all ages, which was printed in Latin in 1556. He composed also a longer version in Latin, printed in 1559. Both versions were printed also in German translations. An unknown translator turned the shorter German version into Lettish, and this translation was printed at Vilna in 1585. The facsimile (1.243-312) is made from a copy in the Library of the University of Upsala.

The second volume contains three works of Georg Mancelius (1593-1654), a native of Kurland, who studied theology at German universities, became professor of theology at the University of Dorpat in 1632

and Rector in 1636, but was called to Mitau in 1637 to be chaplain at the court of the Princes of Kurland. His *Lettus* or dictionary, German into Lettish, and his *Phraseologica Lettica*, or book of common Lettish expressions, were both printed at Riga in 1638. His third work which is here reproduced is *Die Sprüche Salomonis in die lettische Sprache gebracht*, a translation into Lettish of the Old Testament book of *The Proverbs*. The three works are reproduced from a copy in the Württembergische Landesbibliothek at Stuttgart; all three are there found bound in a single volume (in the reproduction, respectively 2.1-222, 223-414, 415-518).

The erection of Latvia into an independent state after the War and the appearance of Lettish as a national tongue lends an especial interest to these volumes, which our fellow-member Dr. August Günther has thus placed at the service of linguistic science. With Endzelin's recent *Lettische Grammatik* and *Lettisches Lesebuch*, we are not ill supplied with the means of pursuing research in this interesting field.

ROLAND G. KENT

NOTES AND PERSONALIA

THE NOMINATION OF OFFICERS OF THE LINGUISTIC SOCIETY FOR 1931 will be conducted in a new manner, because some criticism developed last year of the plan under which a Committee had virtually full power. It was the hope of the original organizers of the Society that nominations might be made from the floor at the annual meeting; and a specific article in the Constitution of the Society enjoins this possibility. But it was at once seen that such haphazard nomination would not normally give as good results as the deliberations of a special committee, and a Committee on Nominations has therefore been appointed annually. When its report has been presented at the annual meeting, opportunity has been given for nominations from the floor, though no such nominations have ever been made.

The suggestion has come to the Executive Committee that the LINGUISTIC SOCIETY OF AMERICA employ much the same method as that used by the Modern Language Association of America; and the Executive Committee considered the matter with much care, finally concluding that a simpler method would give equally good results and would normally not result in leaving a slate of unsuccessful candidates, most of whom would not be seekers for the office and would therefore be displeased by the stigma of defeat. The Executive Committee has agreed upon the following plan, to be used in 1931:

1. The names of the Committee on Nominations shall be announced in the September issue of *LANGUAGE*, with a request that members suggest names to be considered for the various offices.

2. This announcement and request shall be repeated in the first circular of the annual meeting, which goes out about October 1.

3. The Committee on Nominations shall consider these suggestions, and if possible shall make the nominations from among them; but shall take into account the geographical distribution and the variety of special linguistic interests of those to be nominated.

4. The list of nominees shall be sent to the Secretary, to be passed on as to eligibility and to be reviewed by the Executive Committee.

5. This list, after any desirable revision by the Committee on Nominations, shall be printed in the Second Circular of the meeting, which is distributed at the end of November.

6. Any additional candidate whose nomination is made in writing by five members in good standing and sent to the Secretary of the Society and the Chairman of the Committee on Nominations between the receipt of the Second Circular and the December meeting shall be added to the list of nominees to be voted on at the annual meeting.

7. Other nominations may be made from the floor, when the report of the Committee is presented; and such nominations shall have equal standing on the ballot.

The President of the Society has appointed the following Committee on Nominations: Leonard Bloomfield, Chairman, University of Chicago; Walter Petersen, University of Chicago; Miles R. Hanley, University of Wisconsin. Suggestions of names for the offices should be sent to Professor Bloomfield, in time to reach him not later than October 10. The following offices are to be filled: President; Vice-President; Secretary; Treasurer; three members of the Executive Committee; Editor and Chairman of the Committee on Publications; one member of the Committee on Publications, to serve for three years. The secretaryship and treasurerhip may be vested in one person, at the discretion of the Society.

PROFESSOR HEREWARD T. PRICE has sent the following account of the present status of an enterprise that interests all linguists, and has added a description of the ways in which they can help:

THE EARLY MODERN ENGLISH DICTIONARY now has one year of existence behind it, and I should like to report progress. The University of Michigan has supplied \$20,000 to cover the initial expenses of the undertaking and the General Education Board (Mr. Rockefeller's foundation) has most generously voted \$100,000 to finance the project for the next five years. Our immediate task is to arrange and collect materials.

We are a child of the great New English Dictionary, and to begin with, we have received all its quotations. These may be divided into three classes, (a) those quotations which actually appeared in the Dictionary, (b), the rejected material. This is about five times as large as the material actually used. It is of course important, as it contains a good deal of valuable stuff which was only rejected because of the restrictions imposed on the dictionary. Then (c), most important of all, supplementary material, i.e., quotations which have been sent in since the various parts of the NED appeared and which have been definitely marked as necessary for one of several reasons. They may be earlier or later than

anything in the NED, or they may supply a meaning or a word that was overlooked, or they may give other information. Professor Fries has been in England since the summer, superintending the task of getting all this material across. By working like a Trojan he has managed to disentangle it from the mass of other materials we did not need and it is now all safely in our rooms at Ann Arbor.

That is one great achievement, upon which I think we may heartily congratulate Prof. Fries. Besides this Professor Fries has been busy collecting the books we shall need to work with, such books, for instance, as the grammars, dictionaries, and works on phonetics of this period. The Dictionary is to be nothing if not thorough and systematic, and without this background of a comprehensive library we should not get very far. Professor Fries has almost completed this second task or at any rate got things running so smoothly that for the present he can direct them from Ann Arbor.

But all this is nothing like enough. Our great task now is the collection of further quotations. So much has been published since the NED was begun, so much available material was perforce ignored by it and so much that was done for the NED must be done all over again that we have an enormous undertaking in front of us. Last May we sent out an appeal to 800 people asking for readers. As a response to that appeal we have obtained about 150 readers who have turned in about 100,000 quotations. I should like to thank these readers for the generous enthusiasm with which they have helped us and for the splendid work they have done. But now we want not 100,000 quotations, but 1,000,000. This is not a Michigan affair. This is a national undertaking, and it can only succeed if the whole of American scholarship gives us its support. In every university and college we want somebody to represent the Dictionary, whose business it will be to get readers. Perhaps instead of one person, it might be a small committee. They must first get hold of the members of the Faculty. Then they must get hold of the students. We have several books which it would be of the greatest value to a student to work through. This intense application to a particular book or writer would make a student acquainted with the special problems of language as nothing else could. It is not only useful linguistically, the student of literature will derive quite as much benefit from it as the student of language. Then there are the teachers of the district to be roped in. Contact with teachers' associations ought to be useful. Then there are the people with an interest in a special subject. One of the best readers for the NED was a doctor who read the standard medical works as they came out. Another very useful man was a

Civil Engineer whose special knowledge made him an invaluable reader. It might be possible to get hold of some people like these, men who have a special interest. We have books on every conceivable subject, on all the sciences and all the trades followed by mankind. Already we have mathematicians reading mathematical books for us, but we want more, and we want not only mathematicians, but also doctors, geographers, historians, lawyers, musicians, naval men, representatives of all the branches of art and science. That is to say, while we want the students of English before anybody, both for their own sake and our own, this appeal is not limited to them.

We do not wish to take up too much of anybody's time. Half an hour a day will give quite good results. To anybody who would care to read for us, we will send a list of books, on which the reader could mark his preferences in order of choice. Professors who have students doing special work, might perhaps consult us first, so that we can find books to suit them and in this way promote their studies. Others who are interested for themselves in a special subject need only indicate it, and we will make up a list for them.

THE AMERICAN COUNCIL OF LEARNED SOCIETIES announced in April last a number of appointments to Fellowships in the Humanities, and of awards of smaller Grants in Aid of Research, for the present academic year. Several of the recipients are members of the Linguistic Society.

Jess H. Jackson, Professor of English at the College of William and Mary, has received a Fellowship, under which he is to prepare an edition of the *Saga of Ernesto Hertuga oc Griefa Veztelo*, and to make an examination of German influence in Old Norse and later Icelandic documents. His studies take him first to Iceland, then to Scandinavia, and later to other European countries.

Six Grants in Aid of Research were made to members of the Linguistic Society, as follows: to William F. Albright, Professor of Semitics at The Johns Hopkins University, for an archaeological survey of Palestine; to David S. Blondheim, Professor of Romance Philology at The Johns Hopkins University, for Volume II of *Les glosses françaises dans les commentaires talmudiques de Raschi*; to Frederick M. Carey, Assistant Professor of Greek and Latin in the University of California at Los Angeles, for a study of the libraries and scriptoria of Fleury, Rheims, and S. Denis; to Roy Joseph Deferrari, Professor of Greek and Latin in the Catholic University of America, for a concordance of the works of Ovid; to Hayward Keniston, Professor of Spanish in the University of Chicago, for a check list of Spanish syntax; to Nicholas N. Martinovitch,

Professor of Slavonic and Oriental Languages at Columbia University, for an edition and translation of Mihri Khatun, Turkish poetess of the fifteenth century, and for a history of the Old Turkish Theater.

THE EIGHTEENTH INTERNATIONAL CONGRESS OF ORIENTALISTS will be held at Leiden, Netherlands, September 7-12, 1931. The Secretary of the committee in charge is Dr. J. H. Kramers, Musée Ethnographique, Rapenburg 67-69, Leiden.

PROFESSOR ANTOINE MEILLET, of the Collège de France and the École Pratique des Hautes Études, an Honorary Member of the LINGUISTIC SOCIETY, returned to France at the end of May, after the conclusion of his courses at Columbia University. During his stay in the United States Professor Meillet lectured at Yale University and at the University of Pennsylvania, as well as elsewhere, at both of which places, as well as in New York, he and Madame Meillet were guests of honor at luncheons and dinners. At a dinner given in New York on May 7, presided over by Professor Henri F. Muller, the speakers included, in addition to Professor Meillet himself, the following: Professor Louis H. Gray, Professor A. V. Williams Jackson, Prof. A. F. J. Remy, and Professor Franz Boas. Professor Meillet was also the Guest of Honor at the Annual Spring Meeting of the New York Classical Club, and in a graceful after-luncheon speech paid special tribute to our classical heritage, saying that persons of different nations trained in this tradition were really closer to each other than members of the same nation not united by this common bond.

MARY SARAH LEE, a Foundation Member of the LINGUISTIC SOCIETY OF AMERICA, died on June 16, 1930, at New Haven, Connecticut, in her forty-seventh year.

Miss Lee was born on July 8, 1883, at Philadelphia, where she was prepared for college at the Girls' High School. She was graduated from Bryn Mawr College with the degree of A. B. in 1906, and devoted herself to the teaching of Latin, at first in the school where she had herself been a student, then later in the newly established West Philadelphia High School for Girls. From 1908 onward, she pursued Latin courses in the Graduate School of the University of Pennsylvania so far as her teaching duties and her health permitted; she received the degree of A.M. in 1921, and was at work on her doctoral dissertation when her failing health required her to get leave of absence from her teaching.

Even complete rest and the best of medical care could not restore her health, and she died after about six months' illness.

She will be much missed by her associates, who held her in high esteem for her personal qualities as well as for her excellent teaching and fine scholarship.

EDWIN C. ROEDDER, Professor of German Language and Literature at the College of the City of New York, has been made an Honorary Citizen of his native village of Oberschefflenz, in Baden, Germany, in recognition of his researches in the history of German culture, as brought out in his recent volume *Das südwestdeutsche Reichsdorf in Vergangenheit und Gegenwart*, which deals with culture in German villages from pre-mediaeval times down to the present.

DR. KARL ZEMEN, who was Visiting Lecturer in Experimental Phonetics at the State University of Iowa during the last academic year, has returned to his regular post in Vienna.

THE FOLLOWING NEW MEMBERS have been received into the LINGUISTIC SOCIETY OF AMERICA, subsequent to the last published list, and up to June 18:

- Miss Lydia Brown, 1721 S Street N.W., Washington, D.C. (Cardozo High School)
- Miss Alice Hill Byrne, Western College for Women, Oxford, Ohio. (Dean and Prof. of Greek)
- Jagadish J. Chatterji, Esq., International School of Vedic and Allied Research, Times Bldg., 1475 Broadway, New York City.
- Prof. Edward Chiera, Oriental Institute, Univ. of Chicago, Chicago, Ill. (Assyriology)
- Mr. William F. Diller, 239 Pine St., Lancaster, Pa. (Graduate student in Latin, Univ. of Penna.)
- Prof. Dean S. Fansler, Riverton, Conn. (English, Brown Univ.)
- Prof. Nelius O. Halvorson, Iowa State Teachers College, Cedar Falls, Iowa. (English)
- Miss Anna Heyberger, Coe College, Cedar Rapids, Iowa.
- Miss Josephine W. Holt, John Marshall High School, Richmond, Va. (Director of Modern Langs., Richmond High Schools)
- Mr. Joseph G. Kresh, 2116 Morris Ave., New York City.
- Mr. Edwin John Pattee, 13 A Chauncey, Cambridge, Mass. (Graduate student in Romance Langs., Harvard Univ.)
- Prof. Frederick W. Peterson, Foster Road, Ann Arbor, Mich. (Rhetoric, Univ. of Michigan)

BOOKS RECEIVED

Under this heading will be acknowledged such works as seem to bear on the advancement of the scientific study of language.

The publicity thus given is regarded as a full return for the presentation of the work. Under no circumstances is it possible to comply with the requests being made by certain publishers for the return of books not reviewed quickly.

Reviews will be published as circumstances permit. Copies of them will be sent to the publishers of the works reviewed.

For further bibliographic information consult the annual list of Exchanges.

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Das austronesische Sprachgut in den polynesischen Sprachen. By OTTO DEMPWOLFF. (Feestbundel van het Bataviasch Genootschap van Kunsten en Wetenschappen 1929. 62-86.)

Die Behandlung des Todes in den Dramen Grillparzers, Hebbels und Otto Ludwigs. Pp. 28. By HERMANN RENNERT. Giessen: 1929.

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Busse; Bedeutungsgeschichtliche Beiträge zur Kultur und Geistesgeschichte. Pp. 296. By JOSEF WEISWEILER. Halle (Saale): Max Niemeyer Verlag, 1930.

Catholic University of America Patristic Studies: XX **The Use of Indirect Discourse in the Works of St. Ambrose.** Pp. 165. By SISTER M. ANTOINETTE MARTIN. XXI **Titles of Address in Christian Latin Epistolography to 543 A.D.** Pp. 172. By SISTER M. BRIDGET O'BRIEN. XXII **Saint John Chrysostom's Homilies on the Statues: A Study of their Rhetorical Qualities and Form.** Pp. 123. By SISTER M. ALBANIA BURNS. XXIV **The Pagan Divinities and their Worship as Depicted in the Works of Saint Augustine Exclusive of the *City of God*.** Pp. 135. By SISTER M. DANIEL MADDEN. XXV **St. Basil and Monasticism.** Pp. 112. By SISTER MARGARET GERTRUDE MURPHY. XXVI **The Use of the Optative Mood in the Works of St. Gregory of Nyssa.** Pp. 126. By G. W. P. HOEY. Washington: Catholic University of America, 1930.

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CHURCH SLAVONIC *korabъ* AND GREEK *κάραβος*

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[Greek *κάραβος* is not the source of the Slavic word, as is frequently assumed, but is borrowed from it. The Slavic term can be explained as a derivative of IE **qer* 'cut'. It passed also into Latin as *carabus*. See also the summary at end of the article.]

In the opinion of most etymologists ChSl., etc. *korabъ*, *korabъ*, *korablъ* 'ship, boat' is a loanword, coming from Gk. *κάραβος* 'a kind of light ship, etc.', NG *καράβι* 'ship, vessel' (Berneker, *SEW* 567, with refs.; Brückner, *Słownik Etymologiczny Języka Polskiego*, 266). On the other hand, the discussion has also elicited views in support of the Slavic origination of *korabъ*, etc. So Himly in *Zs. f. Völkerpsych. u. Sprw.*, 12. 229 expresses doubt of the borrowing from Greek, while St. Romanski in *Revue des Études Slaves* 2. 52f. connects *korabъ* with ChSl., etc. *koryto* 'trough', Bulg. *koruba* 'hollow of a tree, hole in a tree', etc., and insists, in spite of some irregularity in suffix, on its Slavic origin. His arguments were rejected by Vasmer in *A. Sl. Ph.* 38. 282, but Berneker, *ib.* 265, seems to oppose Romanski mainly because he thinks that the Slavic term should not be separated from the Gk. *κάραβος*, etc.

That the etymology of *korabъ* should not be subordinated to an assumed unity with *κάραβος*, is a postulate derived from the frequent co-existence of words, similar in form and meaning, yet without any historical relationship. Compare, for instance, Hung. *ház*, Eng. *house*; Hung. *mi*, SCr. *mi* 'we'; Hung. *adandó*, Lat. *dandus* 'to be given'; SCr. *ker*, Eng. *cur*; SCr. *motika*, Eng. *mattock*.¹ But even if the unity of *korabъ*-*κάραβος* has to stand, the Slavic origin of the former must not be given up. Barring their derivation from a common source, the latter can be true only if we assume that the borrowing came from the oppo-

¹ Vast material of phonetic and semantic coincidence from non-related languages is collected by Platon Lukasevitch in his curious pamphlet: "Mnimyj Indo-Germanskij Mirъ," Kievъ, 1873.

site direction, i.e. that the Gk. *κάραβος* was taken over from Slavic. This I propose to prove.

Several facts combine in making the borrowing from Greek improbable. Not a single etymologist from among those arguing for the Greek origin of *korabz* has thus far accounted for the difference of labials in the assumed Greek source-word and its Slavic derivative, [v] vs. [b]. Any attempt to reduce the borrowing to the Hellenistic period, involves its author in semantic anachronism, as *κάραβος* first appears with the meaning 'a kind of light ship' in the 7th century, while in the 4th (or even 5th) century of our era it still lacked it. In a nautical sense *κάραβος* was listed for the first time in *Etymologicum Magnum*, a dictionary of the 10th century. Hesychios, an Alexandrian grammarian of the 4th (W. Smith, *A Dict. of Greek and Roman Biogr. and Myth.* 2. 448f.) or 5th (Pauly-Wissowa 8. 1317) century, ignorant of its nautical force, thus describes the meanings of the term: *κάραβος* ἔδεσμα, ὡς φασιν, ὠπτημένον ἐπ' ἀνθρώκων. ὑπὸ δὲ Μακεδόνων ἡ πύλη· καὶ τὰ ἐν τοῖς ξηροῖς ξύλοις σκωληκία· καὶ τὸ θαλάττιον ζῶον. Similarly Varinos-Glyky 362 (1801).

In view of the elaborate treatment of the nautical force of *κάραβος* by the later Byzantine lexicographers, the omission of the latter by Hesychios can be explained only by the absence of such meaning in his time. The more eloquent is this absence, as the writer impresses us with his zeal to give a complete semantic record of the word. Our conclusion cannot reasonably be doubted in spite of a single occurrence of *καράβια* 'ships, boats', the diminutive form of *κάραβος* in the same dictionary, when some later Byzantine interpolator, probably, explained the meaning of *ἐρόλκια* 'tow-boat', as *μικρὰ καράβια, παρὰ τὸ ἔλκεσθαι ὑπὸ τῶν κωπηλατῶν ἢ τῶν μεγάλων πλοίων*. The same attitude is apparent in Leo Meyer's *Handb. d. griech. Etymologie* 2. 349f, which does not attach nautical force to *κάραβος*; and in H. Stephanus-Didot, *Thesaurus Graecae Linguae*, 4. 956f., which separates the nautical meaning from the ancient animal names as a medieval development. But even *καράβιον* (Stephanus-Didot, 4. 956; Du Cange² 1. 589), apart from occasional interpolations, does not appear sooner than in the texts of the 8th century (Pope Zachary's *Gk. Dialogues*, etc.). This is just as we would expect it, since the diminutive *καράβιον* can appear only after *κάραβος*, from which it is derived.

Thus in the light of historical facts the consonant agreement can be saved only by giving up the nautical force of the former, and substituting in its place for some period the meanings specified by Hesychios.

But who would attribute to *korabъ* meanings like 'a kind of roast; gate, mountain-pass; kind of tree-worm; crayfish, lobster'? Consequently, the meaning 'a kind of light ship' of the form *κάραβος* could have been communicated to the Slavs not before the 6th or 7th century, but at that time β sounded as [v] and there is no reason why the Slavs should have resisted the forms **koravъ*, **koravъ*, when the ending of both is very popular in Slavic. (Exx.: Russ., etc. *korova* 'cow', *borovъ* 'boar', *zdorovъ* 'health', *zabava* 'entertainment'; SCr. *zaborav* 'oblivion', etc.) For the same chronological reason we have to discard the idea of a buffer-race, or dialect, whose mission was—as it would appear from some etymologists—to preserve the explosive character of β in *κάραβος* until the coming of Slavs (Meillet, *Ét. Sl.* 187; Brückner, *SEJP* 266), and then to disappear from the stage of history. That such mediation was not needed here, becomes obvious from the fact that the Slavs overran all of the Balkans as early as the 6th century, and shortly after settled down among the Greeks in most parts of European Byzantium. On historical evidence, therefore, the riddle [v] vs. [b] remains unsolved.

The disagreement of vowels in both terms is of no less importance. Why should the uniformity of root-vowels in the Greek terms (*κάραβος*, *καράβιον*) be broken up after their passage into Slavic? The latter might have raised their tone, or left them as flat as in Greek, but the dissimilation in this case would certainly be in defiance of the other well-ascertained examples of the vocalic transfer from Greek. Cf. Russ. *sorokъ* 'forty' from Gk. *σαράκοντα*, *σαρακόστι*, abbreviations of *τεσσαράκοντα* 'forty'; ORuss. *sandalija* from Gk. *σάνδαλις* 'a kind of ship'; ORuss. *katartъ*, SCr. *katarka* 'mast' from Gk. *κατάρτιον* 'mast'; Russ. *kanatъ* from Gk. *κάνναρα* 'cable, rope'; ChSl., etc. *komora*, ORuss. *kamara* 'room, vault', SCr. *kamara* 'stack' from Gk. *καμάρα* 'vault, room'; ORuss. *dromonija* from Gk. *δρόμων* 'a small sailing vessel'; Russ. *uksusъ* 'vinegar' from Gk. *ὄξος* 'stale wine, vinegar', etc.² These facts, certainly, cannot be ignored.

The semantic difficulty, although steadily overlooked, is no less embarrassing than the two, mentioned above. One should show cause why the specific boatname of the Greek became generic in Slavic, and

² The apparent dissimilation of vowels in Russ. *krovatъ* 'bed', as from Gk. *κρεβάτιον* 'bed', may have been the result of contamination with *krovlja* 'roof lid', *pokrovъ* 'cover, veil', or some other derivative of the verb *krytъ* 'to cover'. Phonetically, however, the *o* in *krovatъ* is identical with *a* in the first syllable of the Greek term, so that the uniformity of the Greek vowels has not been broken in Russian.

was diffused in this force all over the Slavic world. For the small, unpretentious *κάραβος*, *καράβιον* this distinction seems unduly high, especially if we consider that not even the impressive *τριήρης*, *κουμβάρα*, *κοντούρα*, *σάνδαλις*, *χελάνδιον*, *δρόμων*, etc., survived with as much as their literal meaning in a single Slavic dialect. If the Slavs had to borrow a generic term for 'ship'—all being well equipped with the wide-spread ChSl., etc. *alъdija* 'ship'—one to include the largest and heaviest afloat, we would expect them to introduce the massive *τριήρης*, *κουμβάρα*, *κοντούρα*, *σαγήνη*, or any other craft, more imposing than *κάραβος*. When the names of the large ships, whose Greek origin cannot be doubted, could not outlive their vessel, how can we admit that *καράβιον*, the name of a mere 'tow-boat, barge' would enthrone itself as a central term of the Slavic nautical vocabulary? The semantic evidence hardly offers anything in support of the theory that *korabъ* was taken over from Greek.

Since *korabъ* and *κάραβος* differ both in form and meaning, and since this difference can be neither overlooked nor explained, would it not be preferable in the case of both terms to attempt a derivation from their respective native source?

A Slavic etymology of *korabъ* seems neither unreasonable nor improbable. The problem is chiefly one of the suffix-relationship to the root. Is *-bъ*, *-bъ* to be conceived here as a suffix? And if so, with what force of meaning? Further, excluding the idea of a dissyllabic root, whether a noun or verb, can we attach to the increment *-a-* such a semantic force as would justify the extension of the root? Finally, does the combined meaning of the root, increment, and suffix yield such a semantic structure, as would imply the idea of 'boat, ship' by the shape, workmanship, material, or some other distinctive mark of the craft? Evidently, the mutual support of so many etymological elements cannot be accidental, and their testimony, therefore, cannot be disregarded.

The root-syllable *kor-* reflects too well the IE **sqr-*, **qer-* 'cut' (Walde-Pokorny, 2. 573ff.), to leave this fact unnoticed. In their IE stage **sqr-*, **qer-* commanded a wide system of extensions, among which the labial increments are conspicuous both in monosyllabic and dissyllabic formations (Walde-Pokorny 2. 582f., 587). This variety of forms is not only preserved in Slavic, but even enriched by the attachment of functional symbols, which are a Slavic development. So not only the various grades of IE **sqr-*, **qer-* (**sqor-*, **sqor-*, **qor-*, **qor-*, **qor-*, **qor-*, **qr-*) appear in Slavic, but they may take on both consonants

(*t, d, p, bh, m, n*) and vowels (*i, oi, u, ou, a*) as increments, and the vowels may again be extended by consonants (*p, b, s*). Thus a vast system of derivatives arises, with a closely related group of meanings, such as 'cut, hew, carve, peel, hollow, dig' (Walde-Pokorny 2. 573 to 587, with refs.). Of especial interest to us, however, are the stems with labial increments, whether attached directly to the root, or to a vocalic base. Among the former we may class:

(a) IE **sqor-bh-*, as in SCr. *škrabija* 'drawer', *škrabnica* 'alms-box'; Boh. *škrabulka*, *škraboška* 'mask'; S-Cr., Boh., etc. *škrabati* 'scratch, scrawl', etc. (Brückner, *SEJP* 267).

(b) IE **sqor-bh-*, as in Pol. *szczerb*, Russ. *ščerba* 'gap, crevice, etc.', etc. (Trautmann, *BSWb.* 266; Brückner, *SEJP* 543).

(c) IE **sqor-bh-*, as in Slov. *škrba* 'gap, tooth-gaping'; SCr. *škrbav* 'full of notches'; ChSl., etc. *skrbbъ* 'worry, grief'; SCr. *skrb* 'care, worry', etc. (Trautmann, *BSWb.* 266; Brückner, *SEJP* 543).

(d) IE **qor-bh-*, as in SCr. *krabija*, *krabica* 'ark'; Russ. *korobъ* 'bast-trunk, wide flat basket, box, etc.', *korobka* 'box'; Pol. *krobia*, *króbka* 'basket'; Boh. *kraboška* 'mask', etc.³ (Brückner, *SEJP* 267; otherwise Berneker, *SEWb.* 568; *Riječnik Akademije* 5. 428, and older writers, without proving borrowing, either from Latin or German.)

(e) IE **qor-bh-*, as in SCr. *krbao* (15th cent. **krbblъ*) 'vas vinarium', *krbulja* 'a basket, made of crude bark of a young tree (for children to pick berries)', *krbanj*, *krboč* 'a kind of pumpkin, with a wide bottom and thin handle, its side being bored out so as to let in water, and make it handy for drinking' (*Riječn. Akad.* 5. 490f); Boh. *krb* 'hearth, fire-side; dove-cot; mower's whet-stone case', *krban* 'dove-cot', *krbanec* 'pitcher, jug, mug', etc. (The assumption of borrowing from Lat. *corbis* or OHG *churpa*, *churbilin* 'basket', is rendered improbable not only by phonetic disagreement, but especially by the wide semantic range of the Slavic forms. In all the above terms obviously the idea of 'hollowing, carving' is active, and has branched out into its specific meanings probably through an intermediate 'dug-out, container'. This against Berneker *SEWb.* 569f., and in support of Brückner, *SEJP* 267.)⁴

In all the above groups we saw the labial increment *-bh-*, attached directly to the various grades of the IE **sqer-*, **qer-*. But the latter

³ In the latter two as well as in Boh. *škrabulka*, the meaning 'mask' developed from 'a hollowed, carved out (thing)', probably with reference to the so prepared pumpkin or bark, up to this time a hand-made mask of the rural frolickers.

⁴ The Serbo-Croatian borrowing from German *Korb* 'basket' is *kórpa* 'basket', but the rest is native.

developed, both in Indo-European and Slavic, bases with consonant and vowel attachments, and these became, further, productive of secondary increments, enriching thus the root-complex with new forms and meanings. Hence ChSl., etc. *krojiti* 'cut', *krajъ* 'edge, end' from IE **qr-ei-* (Walde-Pokorny, 2. 585; Berneker, *SEWb.* 620), and SCr. *kršiti*, *krhati* 'break'; Russ. *krocha* (from **kr̥cha*) 'crumb, morsel'; ChSl., etc. *sъkrušiti* 'break (to pieces), destroy'; SCr., etc. *kruh* 'loaf, bread', etc. from IE **qr-u-s-* and **qr-ou-s-* (Berneker, *SEWb.* 628f., 630f.).

The bases derived in Slavic from the fuller grades of IE **sqr-*, **qer-*: Pol. *skorupa* 'crust, pottery', SCr. *skorup* 'crust, cream', etc. from IE **sqr-ou-p-* (Walde-Pokorny 2. 587; Brückner, *SEWb.* 495), and Russ. *červъ* 'sickle', *červakъ* 'saw' from IE *(s)*qer-w-yo-* (Walde-Pokorny, 2. 586; Berneker, *SEWb.* 172). To this group we can assign Bulg. *koruba* 'hollow of a tree; hole in a tree', SCr. *korubati* 'shell, peel corn-ears', as if coming from IE **qor-ou-bh-*, and ChSl., etc. *koryto* 'trough, dug-out', as if from IE **qor-ū-to-* (see Berneker, *SEWb.* 579, whose connection with ChSl., etc. *korъcъ* 'a cubic measure, vessel, etc.', etc., brings also the latter within the system of IE **sqr-*, **qer-*, all of them reflecting the idea 'dug-out, hollowed out [thing]'; Brückner, *SEJP* 258).

All the above quoted root-extensions came about through the attachment of *-i-*, *-u-* or their variations to some grade of the root, and may have come directly from the parent-speech, or may have been formed at a later time after the old patterns. But also the Slavic period contributed some of its own increments to the useful and popular root. What would be more natural, indeed, than to derive from a perfective **korti* (as in ChSl., etc. *kratъ* 'once, time', *kratъkъ* 'short'; Berneker, *SEWb.* 576f.; Brückner, *SEJP* 270) an iterative-durative **korati* in the sense 'cut, hew, carve over and over again, thoroughly, etc.', since we observe a vast number of such formations in Slavic? Cf. Russ. *katitъ*, *katatъ* 'roll, slide'; *cvěsti*, (pro)*cvětatъ* 'blossom'; *korotitъ*, *korotatъ* 'shorten'; SCr. *bosti*, Russ. *bodatъ* 'stick, pierce', SCr. *pustiti*, *puštati* 'let go, release'; *pući*, *pucati* 'burst, shoot', etc., all with their perfective and iterative or durative force, respectively. In view of this intensive force of **korati*, and with reference to SCr. *krabija* 'ark', Russ. *korobъ* 'bast-trunk, sled-top, etc.', Bulg. *koruba*, 'hollow of a tree, etc.', Boh. *krb* 'fire-place, dove-cot', etc., we may claim for *korabъ* the force of a result-noun, derived from **korati* with the original meaning 'an over and over hewn, a well-timbered (craft or thing)'. This would seem reasonable also on the strength of the internal analogy, as we have seen above that the labial increment attaches in Slavic to nearly all the variations of IE **sqr-*, **qer-*.

But also outside of this group, where its function is obvious, the suffix *-b-* appears as a popular formative of animal-names, as well as of action, result, instrument, and abstract nouns in Slavic. (See Vondrak, *Vergl. Slav. Grammatik*² 1. 603ff.) Among the former we find in SCr., etc. *golub* 'pigeon', *galeb* 'sea-gull', *jastrijeb* 'vulture', *jareb*, *jarebica* 'partridge', *vrabac* 'sparrow', *riba* 'fish', *žaba* 'frog', etc. The action and abstract nouns are very common. Exx.: Russ., etc. *borъba* 'fight, struggle', *chodъba* 'walk', *sudъba* 'fate, destiny', *družba* 'friendship', *služba* 'service', *prosъba* 'request'; Pol. *choroba* 'disease'; SCr. *berba* 'vintage', *tužba* 'complaint', *molba* 'petition', *zloba* 'rancor, spite', *grdoba* 'ugliness, monster', etc.

In the group of the instrument and result nouns belong: Russ., etc. *stolbъ*, *stolpъ* 'column, pillar', SCr. *stube*, pl. 'ladder, steps' (probably to *stolati* 'spread, stretch'; see Miklošić, *SEWb.* 321; Trautmann, *BSWb.* 290f.; Brückner, *SEJP* 502); ChSl., etc. *dqbъ* 'oak', if it belongs with *domъ* 'house' in the sense 'timber' (Berneker, *SEWb.* 216f; otherwise Brückner, *SEJP* 85); Pol. *kozub* 'a little basket, bag from bark or bast' (Brückner, *SEJP* 263); Russ. *kolybelъ* 'cradle', if from *kolychatъ* rather than the dialect-form *kolybatъ* 'swing, rock' (Brückner, *SEJP* 245; Berneker, *SEWb.* 545); ChSl., etc. *vrъba* 'willow', Russ. *vorôba* 'a pair of compasses, compass-string, -board', *vôrobъ*, *vorôbъe* 'an instrument to wind off the yarn', to IE **wer-* 'turn, bow', as in ChSl., etc. *vrъvъ* 'rope', etc. (Walde-Pokorny 1. 275; Brückner, *SEJP* 617f.); ChSl., etc. *Srъbbъ* 'Serbian', Pol. *pasierbъ*, Russ. *paserbъ* 'step-child' in the sense 'kin, related one' (see L. Niederle, *Původ a Počátky Slovanů Jižních* 486, with refs.; certainly not 'a co-sucker, co-sipper' as Brückner, *SEJP* 485, 398, who is not supported by Walde-Pokorny 2. 704); SCr. *glъbъ* 'mud' to ChSl. *glъjъ*, *glina* 'clay, loam' (Berneker, *SEWb.* 310, 304); Russ. *glyba* 'chunk, block' to *gluda* 'dump, dumpling' (Berneker, *SEWb.* 310); etc.⁵ Here belong further: Scr. *škrabija* 'drawer', *krabija* 'ark',

⁵ Interesting in this connection are the names of the three Slavic towns, given by the Arabic and Persian writers, as: *Djervab*, *Chordab* (*Churdab*), and *Kujab*, the former two being termed capitals (L. Niederle 268ff.) Notwithstanding some uncertainties in reading and probable phonetic alteration by the writers, the etymology of the names is transparent. The Moravian *Djervab* seems related to Russ. *derevnja* 'village, hamlet' (literally 'a wooden (place)', i.e. a place of frame-houses, log-cabins), and would mean 'town, village' in the sense 'a (place of) wooden (structures)'. Phonetically, we observe here the palatalization of *d* before the front-vowel, while the metathesis of *r* is still unaccomplished. Similarly in *Chordab* (*Churdab*) *r* is not yet transferred, while *ch* suggests a spirantized *g*, as in Ukrainian or Bohemian. Thus we can reconstruct **Gordabъ*, a derivative

krbao (15th century **krǫbbǫ*) 'a wine-vessel', Boh. *krb* 'fire-place; dove-cot, etc.', and also ChSl., etc. *korabǫ*, *korabǫ*, *korablǫ*, *korablja*, 'ship, boat', in which the suffixes *-bo-*, *-byo-* and *-bya-* are reflected. The stem-variations of the suffix came as a result of dialect-influences, or through the semantic shading of the collective from the concrete noun. They are, further, responsible for the occurrence of epenthetic forms (*-blǫ*, *-blja*) alongside those with a straight labial (*-bǫ*).

The above statements show that the labial suffix of *korabǫ*, far from being an obstacle to the etymology of the word, holds the very key to its meaning. This could hardly be otherwise, due to the marked determinative force of the suffix *-b-* in Slavic word-formation. As to the preceding *-a-*, even if wrong in our assumption of an iterative **korati*,⁶ we can point to its use both in the denominative and deverbative formations, without having to reduce it in the latter case to an iterative stem. Such are: Russ. *stoljarǫ*, SCr. *stolar* 'carpenter, joiner' to Russ., etc. *stolǫ* 'table'; Russ. *Gosudarǫ* 'monarch, prince', SCr. *gospodar* 'master, proprietor' to ChSl. etc. *Gospodǫ* 'Lord, God', *gospodinǫ* 'master, gentleman', etc.; Russ. *govjadarǫ*, SCr. *govedar* 'cattle-herd, drover' to Russ., etc. *govjado* 'cattle', *govjadina* 'beef'; Russ., SCr. *ovčar(ǫ)* 'shepherd' to Russ., etc. *ovečij* 'pertaining to a sheep'; Russ. *zolotarǫ* 'gilder', SCr. *zlatar* 'goldsmith' to Russ., etc. *zoloto* 'gold', *zolitǫ* 'to gild'; Russ. *durakǫ* 'fool, block-head' to *durǫ* 'folly, caprice', *duritǫ* 'be foolish, play pranks'; Russ. *morjak* 'seaman, sailor' to *morje* 'sea'; *rusakǫ* 'a grey hare' to *rusjetǫ* 'become light-colored', *rusyj* 'light-colored, flaxen'; *Sibirjakǫ* 'a Siberian' to *Sibirǫ* 'Siberia'; SCr. *pudar* 'watchman (in a vineyard)' to *puditi* 'scare away'; *pušač* 'tobacco-smoker' to *pušiti*

of **gordǫ* 'town'. Having in mind the fact that both names designate capitals, we can reasonably attribute to the suffix *-abǫ* an exalting or augmentative force. Thus, both terms may mean 'big, chief town'. Cf. SCr. *Gradina*, *Gradište*, *Gradiška*, etc., all in the sense 'large town'.

Kujab is more difficult, but assuming phonetic alteration by the writer (cf. *Chordab* vs. *Churdab*), due, probably, to the fluctuation of tone in the back-vowels: *a*, *o*, *u* (cf. **gordǫ*, Pol. *gródek*, Russ. *gorodokǫ*, SCr. *gradac* (*gradič*) 'a little town', etc.), we may reduce it to **Kojabǫ*. In the sense 'a quiet (village, town)' *Kujab* (**Kojabǫ*) compares well with Russ. *Kijevǫ* (cf. Pol. *pokój*, Ukrain. *pokítj*, Russ. *pokoj* 'peace, quiet'), since the latter apparently shows the same meaning, and may derive its form, through the Ukrainian change *o* > *í*, from an earlier **Kojevǫ*. If the form of the recorded three names could be depended upon, the formative function of the suffix *-abǫ* would be here ascertained.

⁶ Curiously enough, all the primary verbs, except ChSl., etc. *krojiti* 'cut', that represent IE **squer-*, **qer-* and their bases, are lost in Slavic.

'smoke tobacco'; *gudalo* 'fiddle-stick' to *gudjeti* 'to fiddle'; *prdalo* 'culus, ex quo peditur' to *prđjeti* 'pedere'; *grmljavina* 'thunder-storm' to *grmjeti* 'to thunder', etc. Our semantic structure 'a hewn, timbered (craft)' is still firm, and can be applied to the 'boat, ship' as the distinctive mark of its workmanship.⁷

Finally, we can always think also of ChSl. *kora* 'bast, bark of a tree, hide' as the foundation of the structure in the sense 'hide-boat, wicker-boat', especially if we know that the 'hide' and 'bark' are very common raw-materials in the primitive Slavic industries, and that Lat. *carabus* 'navicula ex corio et vimine facta' as well as Ir. *corach* and Welsh *corwg* 'wicker-boat, coracle' convey exactly this force of meaning. Phonetically, nothing would be more natural than the adding of *-b-* to *kora*, describing thus the craft by its material. It may be assumed that a hide-boat was used,^{7a} probably in an auxiliary capacity, by the Slavs at the time of their coming from the North; and if *korabъ* ever derived its specific force from *kora* 'bast, bark, hide', it strengthened thereby the generic term in its proper meaning 'an over-and-over hewn, a well-timbered craft'. The dense forests and the extensive river-system in the prehistoric abodes of the Slavs must have developed them from earliest times into good navigators, a fact which is apparent from the records. Only the lack of cutting and carving instruments could retard their progress, but the etymology of words 'trough, vessel, axe, hatchet, knife', etc., as well as the early historical records (Constant. Porphyrogenn., *De administr. Imper.* IX; O. Schrader² 2. 296) reveal them as fairly proficient in carpentry.

Whether we approach *korabъ* phonetically, or from a semantic point of view, we are in the realm of realities, all bearing the stamp of their Slavic origin. Within the system of the IE **(s)qer-*, **(s)qor-* 'cut, etc.', the phonetic make-up of *korabъ* testifies to the workmanship of the primitive Slavic boat, or discloses its material, if the term is used in a specific sense. Both these characteristics are known to contribute terms for 'boat, ship'. Semantically, *korabъ* 'boat, ship' fits well in the group of **qor-*derivatives, with the meanings 'ark, vessel, trough, trunk, box, etc.', as the latter figure prominently among the semantic

⁷ Cf. Gothic, etc. *skips* 'ship, boat' from IE **sgei-b-*, derived from the root **sgei-* 'cut, separate' in the sense **ausgeschnittener, gehöhlter Einbaum*. (Walde-Pokorny, 2. 545).

^{7a} The lack of historical record to show that the Slavs made use of hide-boats does not exclude the possibility of their existence. In addition to the fact that other Europeans used them, it is known that the Lithuanians and Hungarians made boats out of horse-hides.

sources or congeners of the terms 'boat, ship'. If not for the infix *-a-* the SCr. *krabija* 'ark', Russ. *korobʹ* 'sled-top, box', etc. would be identical in stem with *korabʹ*, *korablja* 'ship', but it is exactly the latter, which, through its iterative force, exalts the semantic content of our term, in order to impress one with the size and appearance of the larger craft.

In considering the semantic range of *κάραβος* one has to distinguish between its ancient meanings and the nautical force that does not appear until the 7th century, and is listed first in the *Etymologicum Magnum*. Its absence prior to 600 A.D. is richly compensated for by its ever increasing frequency in the late Byzantine texts, until the diminutive *καράβι* becomes in Modern Greek the normal term for 'ship, sailing vessel', sharing its popularity with ancient *πλοῖον* and Turkish *καῖκι*. Inversely, the animal names and other meanings, current in antiquity, became gradually obsolete, and at present, apparently, are no longer in popular use.⁸

This chronological distribution of meanings, with the line of demarcation in the 6th and 7th centuries, may well raise the question, whether we have to deal here with two homonyms of different origin. Indeed, the semantic change 'crab, lobster' into 'a kind of light ship, tow-boat' not only would seem unique in the history of boatnames, but is highly improbable for the kind of vessel that it is claimed to be. While a trireme or galley, bristling with ranges of projecting oars, would more likely invite comparison with a lobster or craw-fish, the change nevertheless favored the 'small tow-boat' (*καράβιον* · *μικρὸν ἐφόλκιον*, Du Cange² 1. 589), or a 'kind of light ship' (*κάραβος*), probably a small sailing vessel with no more oars than its rudder. This discrimination in favor of the latter would certainly point to a bias, hard to explain.

The popular etymology of the Byzantine lexicographers⁹ saw in *κάραβος* a compound with the force '(a)head-goer; on-the-head-goer', that could logically apply to 'stag-beetle; worm; crab; lobster; ship'.

⁸ Although most Modern Greek dictionaries still list *κάραβος* in the sense 'lobster' and *καράβις* as 'craw-fish', the terms seem to be unknown to the common people. A personally conducted inquiry among the Greeks of Chicago, natives both of the coastland (Peloponnese and Thessaly) and Arcadia, ascertained their unfamiliarity with either. Only one person out of 35 knew that *κάραβος* means 'lobster'. The man is a native of Navarino, but his brother never heard of *κάραβος*.

⁹ *κάραβος* · *παρὰ τὸ κάραν βαίνειν, τῆς κεφαλῆς προεχούσης, ἢ καὶ τὴν ναῦν ὠσαύτως* · *κάρα γὰρ ἡ τρόπις* (Du Cange², *Gloss. Graec.* 1. 589. So *Etymologicum Magnum* (Gaisford) 1404 (490, 21); H. Stephanus (Didot), *Thes. Gr. linguae*, 4. 956f.

In the latter case, however, they took care to explain that by the 'head' of the ship its 'keel' is meant. This indicates that the Byzantine etymologists did not derive the idea of 'ship' from that of *θαλάσσιον ζών*, but merely applied an assumed meaning '(a)head-goer' to nautical terminology. The idea of semantic transfer 'lobster-ship' came to the modern writers, who, after discarding the popular etymology '(a)head-goer', felt that separating these meanings would amount to their derivation from two different sources. Thus, by force of logic, we discover in *κάραβος* two different words: an ancient animal name and a Byzantine nautical term, which came into vogue by the end of the 6th or at the beginning of the 7th century (see above p. 281; below p. 291). Any language will offer examples of identical forms with different meanings, derived from non-related sources. Compare, for instance, Eng. *file*, to Germ. *Feile* 'rasp' and Lat. *filum* 'thread'; *steer*, to Germ. *Stier* and *steuern*; *net*, to Germ. *Netz* and French *net* 'pure, neat'. Further, *box*, *low*, *mean* (4 sources), *stale* (3 sources), *stable*, *miss*, *mere*, *bear*, etc. (2 sources),¹⁰ Latin *volō* 'will, fly', *furō* 'rave, polecat' (2 sources), etc.¹¹ Greek *ὄλος* 'whole, woolen, baneful, sheaf'; *ὄρος* 'good wind, watchman, frontier, mountain' (4 sources); *δοός* 'quick, shining, pointed'; *ὄς* 'relat., demonstr. and possess. pronoun' (3 sources); *δοάζω* 'be seated, dash'; *ἐλελιζω* 'utter a war-cry; shake, rock'; *ἐλικη* 'willow, spire'; *ἄμη* 'sickle; water-bucket'; *ῥλη* 'forest, timber; mud', etc. (2 sources).¹² In none of the above examples can one claim that the difference of meaning came about through internal semantic development.

The etymology of *κάραβος* with its ancient meanings 'stag-beetle, worm, craw-fish, lobster, etc.', seems obscure to Leo Meyer, *Handb. d. griech. Etymologie* 2. 349, while Boisacq, *Dict. etym. gr.* 411, sees in the term a Macedonian loanword, or at least a word of non-Greek origin. If at all Indo-European, the term will come from a source where the IE animal-suffix *-bho-* will merely deaspirate, and Macedonian or some Thracian dialect seems a good suggestion. (For the velar of the root cf. Lith. *karvė*, Russ., etc. *korova* 'cow' literally 'a horned-one'.)

Thus the etymology of the medieval *κάραβος* 'a kind of light ship' is left open, and with native resources we can succeed here no better than in the derivation of its ancient homonym. Borrowing alone seems to offer a solution, and several circumstances speak in favor of the assumption that the term comes from Slavic. It is not accidental that the

¹⁰ See W. Skeat, *A concise Etym. Dict. of the Eng. Lang.*, s. vv.

¹¹ Walde, *Lat. Etym. Wb.*², s. vv.

¹² Boisacq, *Dict. etym. de la langue grecque*, s. vv.

Slavic *korabъ* is a generic term, while *κάραβος* is only specific. For the Slavs it signified the normal type of a boat or ship, but for the Greeks, who employed it only for minor nautical tasks, it signified a light watercraft, different from the more elaborate vessels of their marine. Just as *Σλάβος*, *Σλαβηνός* 'Slav' became a 'domestic, servant, slave', the Slavic boat found its way into the terminology of the small auxiliary vessels, for the class of which such specific names as *ἐφόλκιον*, *ἄκατος*, *ἐπακτρὶς*, *πορθμὶς*, etc. were common. Restricted to their class, *κάραβος*, *καράβιον* were used at the beginning only as specific terms, and their meaning widened out as the larger vessels dropped out of use and vocabulary. A similar rise in the career of the originally unpretentious secondary vessels we observe in medieval Ital., etc. *brigantina* and *corsaro*, both small pirate-vessels, becoming the powerful *brig* (by abbreviation), and the modern *cruiser*, next in importance to 'dreadnoughts'. For the penetration of Slavic boatnames into the nautical vocabulary of other languages, cf. Germ. *Zülle*, *Zille* 'river-boat', Austr. Germ. *Tschinakl* 'boat', Hung. *csolnak* 'boat'; Ruman. *cîn* 'canoe' from ChSl., etc. *člōnъ*, *člōnъkъ* 'boat'; Swed. *lodja*, Norw. *lodje*, *lorje*, MLG *lodie*, *lodige*, Icelandic *ellidi*, *ellida* 'a kind of ship', Hung. *ladik* 'boat, canoe'; Alban. *lage* 'ship' from ChSl., etc. *ladъja* 'ship'; Hung. *kerép* 'barge' from ChSl. *korabъ* 'ship'; Hung. *naszád* 'ship, cruiser' from Sl. *nasadъ* 'a kind of ship'. In all the above cases the terms were introduced as specific names, and found their place among the names of lighter craft, in spite of the rich nautical terminology in each respective language.

Not insignificant is the coincidence in the appearance of this term with the coming of Slavs within the confines of the Byzantine empire. As early as the 5th century the Slavs came into close touch with the Grecian world.¹³ In a series of successive raids and invasions the Slavs

¹³ In opposition to the older views about the coming of the Slavs, L. Niederle places their appearance and isolated settlement in the eastern provinces of the Roman Empire at much earlier periods. His theory (*PPSJ* 160f.) is: 'The Slavs came through the Carpathian Mountains not only in the 5th century to Hungary, and in the 6th to the Hungarian and lower Danube, but they were settled there, forming small islands in Illyricum—in the West—, and in Dacia, Sarmatia, and Thrace—in the East—, already in the second, or even in the first century A.D. Obviously, they gradually and successively forced their way along the northern tributaries of the Danube, chiefly along the Vag and Gron, as well as through the lowlands of the Theiss, and east of the Carpathians, along the Sereth and Pruth. During the storm of migration of the northern peoples, their advance became intensified, while in the 4th and 5th century the territories north of the Danube

overran all of the Balkans in the 6th century, colonized most parts of the peninsula toward 600 A.D., while in the early 7th century the Slavization of the Balkans is completed. Constantine Porphyrogennetos, as well as earlier writers describe the sea-faring craft and skill of the Slavs in some detail. In the campaigns of the Avars in the 6th and 7th century, the Slavs supplied the naval forces, and made sea-attacks against Constantinople, Salonica, and Heracleia. In 626 A.D. they were defeated in a naval battle before Constantinople, but their sea-faring skill and courage is extolled by Anonymus Byzant., as follows: *πλείστην γὰρ οἱ Σκλάβοι πείραν τοῦ κατατολμᾶν τῆς θαλάσσης εἰλήφασιν.* (See for details: L. Niederle, *Život Starých Slovanů* 3. 448–453; *Původ a Počátky Slovanů Jižních* 237.¹⁴) Prior to the rolling off of the main stream of the Slavic migration, we have to assume exploratory cruises of their advance-posts, groups of adventurers, merchants, and free-booters sailing in and around the Greek ports. They could have done this mainly in their own vessels, built in their Slavic abodes, or after native patterns, with a peculiar workmanship, and suited primarily for navigation on large rivers. The craft was probably a good light cruiser, suited to raids and minor commercial tasks, and was adapted by the Greeks, as an auxiliary vessel, for a great many purposes. With the boat the Greeks took over the name, which readily suggested itself with the outstanding features of the craft, in all probability a primitive, but serviceable sailing-vessel.

No less remarkable is the phonetic agreement between *κάραβος* and *korabъ*, resulting from the Byzantine treatment of the Slavic form. Due to a process of vowel-mutation that took place in the earlier part of the Middle Ages,¹⁵ the later Slavic *o* had an open flat sound *a*, which sounded to the contemporary Greeks almost or exactly like their *a*. (Similar is the phonetic relationship of the modern Russ. gen. sg. *góroda* 'town' to its nom. pl. *gorodá*). Thus the Slavic names and words which penetrated into Greek in the period from the 6th to the 10th century display

were gradually filled with the Slavic tribes, who busied themselves with preparations to invade in a stream also the Balkans.'

For the extensive treatment of the subject, cf. *ibid.* 102–74.

¹⁴ The names, applied by the Byzantine writers to the Slavic water-craft, are varied: *μονόξυλα*, *σχεδιαί*, *ἀκάτια*, *ὀκκάδες*, *καράβια* and later also *χελάνδια*, *σαγήναι*, *κοντοῦραι* (Niederle, *PPSJ* 237f; *ŽSS* 3. 450). This discloses a variety of Slavic boat-types and suggests the existence of a considerable ship-building trade.

¹⁵ See P. Kretschmer, 'Die slav. Vertr. d. idg. *o*', *ASPh.* 27. 228f.; J. Schmidt, *Vokal.* 2. 169ff.

an *a* for the Slavic *o*. Compare¹⁶ (1) Ἀρδάγαστος, Theophyl. Sim. (7th cent.) 1. 7, 5; 7. 7. 1; 9, 1 (cod. Vatic.). Here the second element of the name is *gostb* 'guest', while the first obviously comes from *radb* 'fond, loving' (for the transposition of Sl. *-rax-* into Gk. *-arx-*, cf. Δαργαμηρός to *Dragoměr*, etc.), as in SCr. *Radoslav*, etc., so that the original compound **Radogostb* probably meant 'fond of, lover of guests'. (2) Πειράγαστος Theophyl. Sim. 1. 4. 13; Πηράγαστος, Theophan., p. 275f, from *Pirogostb*. (3) Κελαγαστός Menand. (ed. Dindorf), p. 5 (7th cent.), from *Čelogostb*. (4) Δαβραγέξας, Agathias 3. 21 (p. 186, 11 Bonn.), an entry of the 6th century. The first part of the compound comes from the Sl. *dobro-* 'good', a common element in Slavic names. (5) Δαργαμηρός, Theophan., p. 497, 17; cf. *Dragoměr*. (6) Σκλαβηνοί, Pseudo-Caesarius, about 525 A.D., etc.; cf. *Slověninb*. (7) ἡάκανον 'custom, habit', Const. Porphy. and earlier writers; cf. *zakonb* 'custom, law'. (8) γαρασδοειδής 'smart-looking, shrewd', Euphemios. The first part of the compound comes from *gorazdb* 'clever, able'. (9) ῥαγάξιον 'reed', scholiast *Gu* to Euripides; from *rogoz* 'reed'. Here probably also Ἀνάγαστος, to *Onogostb* (?), a leader at the court of Attila (L. Niederle, *PPSJ* 242). Passing over many other cases of similar agreement, some certain, others doubtful, I conclude with reference to Kretschmer's estimate (ibid. 236) of the situation: 'Eine weitere Durchforschung des in Betracht kommenden Materials, besonders aber der noch so wenig untersuchten slavischen Ortsnamen des modernen Griechenlands, wird vielleicht die Zahl dieser Belege für gr. *a-* slav. *o* noch vermehren'.

As the above example of Δαβραγέξας for *Dobro-* shows, the Slavic *b* is rendered in Byzantine Greek with *β*. This is further observed in Tsakon. γράβα 'den, hole', from Slav. *grozb* 'ditch, grave'.¹⁷ NG, Epir. βεδρά 'hip, thigh-bone', from Sl. *bedro* 'id.'; Byzant., NG, Epir. βάβω 'old woman', from Sl. *baba* 'id.'; ὀβορός 'heap, cow-stable, etc.', from Sl. *obor* 'enclosure (for cattle), stall'; NG σβάνα 'wine-cup', cf. SCr. *žban*, *džban* 'a wooden can'.¹⁸ Byzant., NG βάλτος 'marsh, swamp', cf. SCr. *blato* 'mud, puddle', Byzant. βοάνος, βοένος 'leader of the Avars', cf. SCr. *bojan* 'fighter', Byzant. Βούργαρος, βουλγαρικός, cf. Sl. *Bǫlgar* 'Bulgarian', etc.¹⁹

The above correspondences show conclusively, why the Sl. *korab* assumed, after its passage into Greek, the form *κάραβος*, with its particu-

¹⁶ Examples taken from P. Kretschmer, ibid. 231ff.

¹⁷ P. Kretschmer, ibid. 234.

¹⁸ G. Meyer, *Neugr. Studien* 2. 15ff.

¹⁹ Man. A. Triandaphyllidis, *Die Lehnwörter d. mittelgr. Vulgärlit.* 150f.

lar treatment of the Slavic *o* and *b*. This phonetic agreement is no less marked than the disagreement which becomes inevitable as soon as we reverse the process of borrowing, by deriving the Slavic form from Greek.

According to Ducange (L. Favre), *Gloss. mediae et infimae latinitatis* 2. 157, the word is also Latin, and appears in Isidore (*Origines* 19. 1. 26) with the definition 'parva scapha ex vimine et corio'; similarly in Ugutio, etc. (Papias: 'navicula discurrens in pado'). In spite of some semantic difference, the identity of the words is obvious, and there can be question only of the source of the borrowing. Did *carabus* come from Greek? Its form with the force of animal names certainly did (Walde² 129; O. Weise, *Die griech. Wörter im Latein* 369). As a nautical term, however, it can, in my opinion, more plausibly be derived from Slavic. (Otherwise, Walde² 129.) While Lat. *b* conflicts with the Byzant. Greek β , it agrees with Slavic *b*. Furthermore, the Sl. *o* of the medieval period is rendered in Latin with *a*, as it is in Greek with *a*. The early entries of the Slavic names in Dalmatia (9th, 10th cent.) prove this beyond reasonable doubt. Compare *Dabra*, from *Dobra*; *Balislaua*, from *Boleslava*; *Gayslauus*, from *Gojслав*; *Pauersenus*, from *Поврѣнъ*; etc. (P. Kretschmer, *A. Sl. Ph.* 27. 237f.). So, the phonetic agreement here is rather in favor of Slavic than of Greek. And the semantic force attached to *carabus* 'a small wicker-boat, covered with raw hide' upsets, in my estimation, the balance decidedly in favor of Slavic. Again, we see the primitive Slavic boat, appearing, this time, on the central Danube and its tributaries (Theiss, Save, Drave), and probably along the island-coast of the eastern Adriatic. This was the sphere of Latin influence, and the advance-posts of the migrating Slavic tribes may have reached these places very early, impressing the Latin population with their primitive craft. In fact, L. Niederle argues, on hydrographic evidence, the existence of isolated Slavic settlements in Syrmium and northern Bosnia in the 2nd century of our era.²⁰ His-

²⁰ The river-names *Ulca*, now *Vuka* (near Vukovar in Syrmium) from **Volka*, literally 'wolf-stream', and *Urpanus*, now *Vrbas* (but cf. *Vrpolje*), supported by a group of cognate stream and town names, such as *Vrbica*, *Vrbanja*, *Vrbas* (town), etc. (all in the sense 'willow-stream', etc.), further, the island-name *Metubaris* (probably *medjubarje* in the same sense 'island between two swamps' as *Medjmurje* in Croatia, and *Medjureč* in Montenegro), preserved in the documents of the 2nd and 3rd century, are quoted in support of this theory. Similarly the lake Platen is called by Pliny and later writers *lacus Peiso*, *Pelso*; *Pelsois*, *Pelsodis lacus*, a name, apparently cognate with Boh., Slov., etc. *pleso* 'lake' (Niederle, *PPSJ* 148-53).

torical records show that the Slavs occupied the eastern coast of Adriatic (Dyrrhachium, Dalmatia, Istria, Julian Alps) in the second half of the 6th century, and made frequent inroads in northern Italy (Niederle, *PPSJ* 338ff., 374ff.).²¹ The wicker- or hide-boat served the Slavs for emergency purposes on their passage of numerous water-barriers. Of any elaborate workmanship one could not think, and improvised pontoons of the above description may well have served the purpose.²² For some time even following their settlement in the new country, the serviceable craft may have been used as a ferry or fishing-boat.

Thus *carabus*, in the sense of a 'small wicker-boat, covered with raw-hide', comes nearest to the specific force of *korabъ*, as derived from ChSl., etc. *kora* 'bark, hide' (see above p. 287). It does not seem clear, whether the Romance equivalents of the Lat. *carabus* are its phonetic descendants, or borrowed Levantine terms, coming from the Byzantine Greek and Arabic sources. Judging by their meaning, neither the Span. *cáraba* 'cierta embarcación usada en Levante', nor *cárabo* 'embarcación pequeña, de vela y remo, usada por los moros' (Pagés, *Gran Dicción*. 2. 139f.; similarly for Port. *caravo*: Constancio, 1. 228; Moraes⁷ 1. 334; Figueiredo 1. 251) seem to come from Lat. *carabus* 'wicker-boat'. The former will be borrowed from the Byzant. Gk. *κάραβος, καράβι* (so Pagés, *ibid.*), and the latter from an Arabic adaptation of the Greek term (Corazzini, *Vocab. naut. ital.* 2. 88). If this be so, then the Lat. *carabus* 'wicker-boat' never overlapped the limitations of its class, and was doomed to oblivion with the passing of the craft. But its apparent diminutive form **carabella* broke through the belt of semantic restriction, and soon started out on a career of international importance. This very feature may arouse suspicion as to the diminutive character of the Late Latin **carabella*, as reflected in Ital. *caravella* 'cavel', etc. (Diez. *RWb.* 88; Hatzfeld-Darmsteter, *Dict. Général* 1. 355; *Vocab. degli Accademici* 2. 557, etc.).²³ Would, indeed, the diminutive type of

²¹ In connection with the latter of especial importance is the definition of *carabus* by Papias: 'navicula discurrens in pado'. The valley of the Po is exactly the region of the Slavic inroads, as seen by the attacks on Cremona, Mantua, etc., ever since 548 A.D. Sporadic or massive settlements north-east of this area are known since the 7th century (Niederle, *PPSJ* 197, 223f., 338, 347ff.).

²² The Slavs built in 580 A.D. pontoon bridges for the Avars on the Save and Danube (Niederle, *PPSJ* 237s.).

²³ Not only isolated is Meyer-Lübke's (*REWb.* 1267) apparent assumption that the Ital. *caravella* comes from Port. *caravela*, but the author himself fails to support his view with any evidence. See A. Scheler, *Dict. d'étym. franç.* 89; Hatzfeld-Darmstetter, *Dict. Général*, 1. 355; *Vocab. degli Acad.*, 2, 557, etc. Curi-

'a small wicker-boat', known as such in the 7th century, so soon become an important unit in the medieval marine? For Columbus discovered America with his fleet of three caravels (Corazzini, *Vocab. naut. ital.* 2. 94).

No doubt Ital. *caravella* seems related to Late Latin *carabus*, as Ital. *ucello* 'bird', *agnello* 'lamb', *rondinella* 'swallow', etc., are related to Lat. *avis* 'bird', *agnus* 'lamb', and *hirundo* 'swallow', all recipients of a diminutive suffix. But one can always wonder, whether it is accidental that some other diminutive suffix had not been attached to *carabus*, so as to contribute Ital. **caravetta*, **caravina*, **caraveccia*, etc. Surely enough, there is no more phonetic reason for one than there is for another. Moreover, the diminutive force of the suffix is in conflict with the historical rise of the craft, and one would rather expect an augmentative in its place, as we see Ital. *galeone* 'galleon' marking the growth of *galea* 'galley'. Finally, not insignificant is the fact that the Port. *caravo* and Span. *carabo* are smaller than *caravela* and *carabela*, respectively, while the force of the suffix would demand the opposite. Thus we shall keep better pace with the progress of history, by returning once more to its Slavic source and derive Late Latin **carabella* or its like from Sl. *korablja* 'ship' [or from a masculine form **korabъlъ* (cf. SCr. *korabalj*: *Riječn. Akad.* 5. 316f.), which in the early Dalmatian pronunciation sounded as **karabel*], this time in its generic sense and statelier aspect. The presence of the epenthetic -l- identifies **carabella* as a later borrowing, but one that took place prior to the raising of -o- to its present tone, and the 9th or 10th century seems a reasonable suggestion. That the Slavs ever since their appearance on the Adriatic had at their disposal impressive naval resources, is evidenced by Porphyrogenetos' description of King Tomislav's (800 A.D.) fleet (80 *sagenae* and 100 *conturae*), and by numerous raids, made by the Slavs on the coasts of Italy, Sicily, and North Africa (Niederle, *ŽSS.* 3. 450f., 451s.) Again the historical evidence is in line with the phonetic and semantic agreement on both sides.

Korabъ is not the only Slavic word that had an international career. Of similar expansion is *kola*, *kolesa* 'cart, cab' (cf. Ital. *calesse*, *calesso*, Fr. *calèche*, Span. *calesa*, and back into Slavic: Pol. *kolasa*, *kolaska*, Russ. *koljaska* 'calash, cab'; Berneker, *SEWb.* 549); ChSl., etc. *ladzja*

ously enough, F. Constancio (*Novo diccion. critico e etym. da lingua portugueza* 1. 228 (edit. 1836), derives the Port. *caravela* from French: 'carré, quadrado, e voile, vela'.

'ship', *člŕnŕ* 'boat' (see above, p. 290); Russ. *šelkŕ* (from *šŕlkŕ*), Lith. *šilkai*, ON *silke*, OE *seolc*, *seoluc* 'silk' (O. Schade² 383); ChSl., etc. *sukno* 'cloth, skirt' (Brückner, *SEJP*; Miklošić, *SEWb.* 333), etc. Earlier in antiquity from Slavic came Latin *viverra* 'ferret', *καννάκης*, 'weasel-fur', *ζόμβρος*, *ζούμπρος* 'buffalo' (Niederle, *PPSJ* 165, with refs.).

In a summary of our discussion, the following points stand out with reasonable certainty:

(1) Assuming that *korabŕ* was borrowed from *κάραβος*, the phonetic differences cannot be disposed of. By reversing the process of borrowing, the phonetic agreement becomes complete. The Late Latin *carabus* shows, in addition, a more specific agreement of meaning with Slavic.

(2) The meaning 'ship' of *κάραβος* is listed for the first time in the *Etymologicum Magnum*, a dictionary of the 10th century, while its first quotable entries come from the 7th century. At least a century of intensive touch of the Slavs with Greeks precedes the first entry.

(3) Whereas *κάραβος* is used as a specific boatname, *korabŕ* is from the beginning generic. While it is natural for the primitive Slavic 'ship' to become a minor auxiliary craft in the Byzantine marine, it is inconceivable that *κάραβος*, one of the many specific boatnames which found their way into Slavic, not only survived, but became a generic term, spread all over the Slavic world, and established itself as a central term of their nautical vocabulary, to the exclusion of all others. If, on the other hand, *korabŕ* was used also with the specific force 'wicker-boat, hide-boat', *κάραβος* never displayed such meaning, and the etymology of our term would plainly show its Slavic origin.

(4) A number of other cultural Slavic terms show wide diffusion over Europe from an early historical period.

(5) Etymological evidence identifies *korabŕ* as a Slavic formation with the original meaning 'a thoroughly hewn, a well-timbered (craft)'. At the same time the nautical meaning of *κάραβος* has to rely for its derivation on an improbable semantic change, left without the support of a single quotable instance in the history of nautical terminology.

THE DERIVATION OF THE GREEK WORD *PAEAN*

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[An argument for the origin of the word in the north of Greece and not in Crete.]

In *Neue Jahrb.* 43. 385 ff. (1919) L. Deubner revives the idea that the word *paeon* is originally an apotropaic cry for help, without particular verbal signification and derived from Cretan magic. It develops, he maintains, from the wild leap of the Cretan medicineman into the song of Apollo;¹ and, comparing the word with ejaculations such as *ἐλελεῦ* and *ἀλαλαί*, he includes also the refrain of the marriage hymn *Ῥμήν ὦ Ῥμέναιε*. In the course of a long discussion of the *paeon* he dismisses among other 'Irrlichter' the derivation of the word proposed by me in 1911 at a meeting of the American Philological Association, and afterward published in the *Classical Review*.² Most of my arguments are summed up by Deubner in an 'etc'. I have discussed the matter further in *Troy and Paeonia* (New York, 1925) and as I had not read Deubner's article at the time of my last writing on the subject, I should like now to consider some of his statements which appear to me wrong or misleading, and to strengthen by a new emphasis my suggested derivation for *paeon*.

Deubner differs with Fairbanks,³ who believes that *Paeon* is an epithet of Apollo and that the song was derived from the name of the God. Deubner believes that the author of the fifth book of the *Iliad* invented offhand the physician of the gods who appears with his soothing herbs of healing twice in that book. This manner of dealing with evidence is convenient, but obviously arbitrary and indefensible. The divine physician *Paieon* in the *Iliad* has a name of the northern type ending with *ων*, which has long been noted as a termination characteristic of the north Greek tribes. Another northern deity of healing, *Darron*,

¹ Op. cit. 406: 'Wir versuchten den Weg seiner Entwicklung aufzuzeigen, von dem "tobenden Sprung" der altkretischen Medizinmänner bis hin zu des apollonischen Liedes leichter Verklärung.'

² *CR* 26. 249ff. (1912).

³ *A Study of the Greek Paeon* 7.

is defined by Hesychius⁴ as a Macedonian daemon to whom they pray in behalf of the sick. This name appears to be the ethnic appellation of the Paeonian tribe of Derrones⁵ and the god is doubtless that Derronaïos whose inscription and image the Paeonian king Lykkeios put upon his coins. I quote from Head, *HN* 20 f.:

Reinach's location of the Derrones is therefore probably correct and in striking confirmation of it he publishes a unique silver stater of king Lykkeios of Paeonia (B. C. 359-340), on the obverse of which is a beardless laureate head accompanied by the legend Δερρωνναῖος, proving that Paeonians and Derronians worshipped the same god, and that consequently they must have been near neighbors. The fact that the early Derronian coins may be dekadrachms of the Euboic or Chalcidian standard suggests that this tribe may have occupied the country between Chalcidice and the Pangaeian and Bisaltian silver mines and that the chief source of their wealth may have been the carrying trade between the two.

The form of the divine appellative Derronaïos is like that of Zeus of Dodona in the prayer of Achilles, *II* 233, Ζεῦ ἄνα Δωδωναίε. Compare also among others the ethnic adjective Ὑπαραῖος from Hypata in Thessaly, found in inscriptions attached to the name of Apollo, Asklepios, etc. See Stählin, *Das Hellenische Thessalien* 222, on 'Heilgötter von Hypata'. Since we find a god worshipped by a tribe neighboring and kindred to the Paeonians whose name is the tribal ethnic adjective, and since one form of that name is the name of a deity to whom the Macedonians pray in behalf of the sick, we have a strong parallel for the derivation suggested by me for Paieon. Perdrizet has noted the northern manner of using an ethnic title instead of the name of the god. In his *Cultes et mythes du Pangée* 31 he says that the Thracians particularly scruple to designate their god by name, a vague appellation 'often accompanied by a place designation appearing to have satisfied their uneasy and suspicious piety.' Other examples of this use of tribal and place names may be found among the Celtic deities of healing.

As I have noted in earlier discussions the formula for the healing of the god Paieon in the *Iliad* is:

τῷ δ' ἐπὶ Παιῶν ὀδυνήφата φάρμακα πάσων
ἡκέσατ(ο)

and the earliest tribal hero of the Paeonians is the Healer (from ἀκέομαι) Akessamenos, the grandfather of Asteropaios. These northern lands are especially the home of the pharmaka and of the 'bitter root' used

⁴ Δάρρων· Μακεδονικὸς δαίμων, ᾧ ὑπὲρ τῶν νοσούντων εὐχονται.

⁵ *Troy and Paeonia* 102.

in the treatment of wounds. The *Rhizotomoi* of the poet Sophocles celebrate the Sun and Hecate as their lords, deities who clearly are the Sun and Artemis Basileia, the terrible Diana Regina of the Balkans. (Cf. Pârvan, *Dacia* 71, 163, et pass.)

For evidence of the northern art of healing we have Akessamenos of Paeonia, Cheiron⁶ of Thessaly, and his pupil Achilles, and the physicians of the Iliad, sons of Asklepios, from the northern Tricca. The northern water-worships and the cults of springs and rivers are notably connected with the healing art as well as with ritual cleansing. Deubner follows Miss Swindler⁷ in his argument that the paean is derived from Crete; and citing the passages adduced by her to prove this, holds the most important to be the lines in the hymn to Pythian Apollo (516 ff.) in which the coming of Cretans to Pytho is described. They come beating time and singing 'such paeans as are paeans of Cretans (i.e. are sung by Cretans) in whose breasts the Muse has put sweet singing.' Here I think it is clear that the writer is distinguishing Cretan paeans from other paeans. In any case the hymn is later than the Iliad and cannot be regarded as outweighing the passages in Homer in which the Achaeans sing the paean with no reference to Cretan origin.

The other notable passages cited by Deubner, following Miss Swindler, are those of Strabo⁸ in which he quotes Ephorus' argument that most Spartan institutions are really Cretan. Thales, according to Ephorus, has invented the Spartan dances and paeans and he says the usual rhythms and paeans are called Cretic. Ephorus also argues that the Cretan *ἱππεῖς* are an older institution than the Spartan because they still use horses, and asserts a Cretan origin for such offices as the *gerontes* and the *andreia*. The fact that the latter word was displaced in Sparta by *syssitia* and *phiditia* is adduced in Strabo's account as an evidence of the priority of Cretan institutions. 'The truth being', says Ephorus, 'that the institutions were invented by the Cretans and elaborated by the Spartans.'

The whole chapter proves too much and cannot in itself be regarded

⁶ Kretschmer, *Glotta* 10. 59 (1920), explains Cheiron from the Geek word *χελρ* as the inventor of the art of healing, and as the first physician, the possessor of the hand that relieves pain, as well as of the hand skilled in other respects such as the lyre etc. Cf. English word *handy*.

T. W. Allen, *Catalogue* 121: 'Chiron held an academy on his mountain which was attended by, among other heroes, Asklepios all the way from Tricca.'

⁷ *Cretan Elements in the Cults and Ritual of Apollo* 59 ff.

⁸ 481 ff.

as evidence for the origin of the Greek word paean, as in that case the Cretan *ἱππεῖς* might be cited to prove the Cretan origin of the Greek word *ἵππος*. That word Kretschmer⁹ suggested comes from the north and probably from Paeonia.

It is clear that the dance and music flourished in Crete. The muses, however, are of the north, and among the first of singers are the northern Thamyras and Orpheus. The paean may have taken on in Sparta and in Crete a deepened 'cathartic' value; but the germ¹⁰ of that appears on the occasion of the first recorded use of it in *Iliad*, A 473, when, after the prayer (A 456) of the priest for the turning away of evil from the Greeks, the glad paean song is sung. The verb in the prayer, *ἄμυνον*, has exactly the apotropaic meaning that Deubner considers the essence of the paean. 'The Achaeans all day long with dance and song strove to turn away the anger of the god and gain his favor (*ἰλάσκοντο*) by singing the good paean, dancing and singing to Apollo.'¹¹ In the other passage in which the paean song is mentioned Achilles after the death of Hector bids the Myrmidons sing the paean. The line (X 391), which is identical with that just quoted from the first book except for the first foot, is:

νῦν δ' ἄγε αἰδόντες παίηονα κοῦροι Ἀχαιῶν

In both cases the *κοῦροι Ἀχαιῶν* are the singers, and the line is evidently traditional. This indicates that the Achaeans had the paean before the Cretans, and this is quite in harmony with the northern origin of both Achaeans and the paean. The Myrmidons have a typically northern name and they notably have the northern formation of the phalanx.¹² It is therefore natural that they should sing the northern triumph song of battle, which in its origin may well have been apotropaic and in any case was a cry to the Paeonian god, generalized as in the case of other deities. Some of the tribal epithets were destined to become universal or famous such as Olympios and Dodonaïos, others always so far as we know were restricted to a certain area such as Darron, the god of the Derrones, worshipped by Macedonians for health, and Derronaïos, the god of Derrones and Paeonians.

Among the Celts are found healing deities of a similar nature who take their names from the places in which they are worshipped. Compare Borvo (whose inscriptions are found at Bourbon-Lancy), Luxovius,

⁹ *Einleitung* 248.

¹⁰ Nilsson, *Greek Religion* 85 f. for the great cleansing after the plague in the first book of the *Iliad*.

¹¹ οἱ δὲ πανημέριοι μολπῇ θεὸν ἰλάσκοντο, καλὸν αἰδόντες παίηονα κοῦροι Ἀχαιῶν.

¹² *Troy and Paeonia* 35, 48, 50.

and Bricia. *CIL* 12. 526. These inscriptions are chiefly found at healing waters.¹³

In his book on Dacia, Vasile Pârvan speaks (163) of the innumerable Thracian dedications to gods whose titles are taken from local place-names, such as the Sanctus Casebonus in Moesia who is merely the god of the district Kasibonon. The solar beliefs of the Carpatho-Danubians in the bronze age and later in Dacia are noted by Pârvan (70f.). He speaks of the symbolic representations of the sun god which as 'ex-votos or as amulets recalled to mind the apotropaic or healing qualities of the sun god. Like the Celtic Apollo this Getic Zalmoxis was a healer God.'

There is abundant evidence early and late for the existence of an art of healing and heroes or gods of healing in the north and to the north of Greece. The horse came to the south from central Europe and brought its name to Greece from Paeonia, according to the hypothesis of Kretschmer already mentioned. It came late to Crete and was so esteemed that Ephorus argues that the Hippeis of Crete were older than those of Sparta because they still used horses. The argument is obviously inverted, but no more unreasonable than Deubner's contention that because dances, rhythms, and paeans were called Cretan in Sparta, the word paean must have been originally a Cretan apotropaic cry.

For the form Paieon we may also compare the name of the Thracian wargod, Kandaon for *Κανδάφων*.¹⁴ We may put together three names of like ending and implication in three deities of three neighboring northern tribes Derrones, Crestones, and Paiones with gods Darron (Derronaïos), Kandaon, Paieon.

Kern in *Religion der Griechen* 1. 154 holds that the epithet Paian of Apollo has come from the 'Heilrufe *ἡ Παϊάν*', and in a note refers with commendation to Deubner's article. Nilsson without committing himself to the derivation from a cry says (*Greek Religion* 130):

The curing of diseases everywhere plays an important part and among primitive peoples lies in the hands of sorcerers and priests. There was in earlier Greece a class of seers and purificatory priests which in all essentials fulfilled this function. The art of healing consisted in magical ceremonies and incantations. In later times these were usually called *ἐπιφάται*, charms, but in earlier days they were

¹³ Cf. also *Hypataios*, *IG* 4. 1170; 13. 3. 1330; 12. 5. 156, and see Stählin in *PW* 9. 240, s.v. *Hypata*: 'Der Kult der Heilgötter wird seinen Ausgangspunkt an der warmen Quellen gehabt haben'.

¹⁴ Lycophron 938. See Kazarow, 'Die ethnogr. Stellung der Paeonen', *Klio* 1922. 26; Kretschmer, *Einl.* 389 n.

certainly called paeans (παίων), for Homer speaks of the god of healing, Paieon, who takes his name from them. With the charm was blended the name of the god, and thus the paeon became a song of thanksgiving and eventually of victory. In later times Apollo has made the art of healing his own, and after him his son Asklepios took it over.

This statement of Nilsson's appears to me right in every point except that of deriving the god from the name of the hymn. From the healing nature of the Paeonian deity the phrase 'to sing Paieon' or 'to sing *τῷ Παίῳ*' meaning to sing the god, would easily generate the name of the song. The glory of the Paeonian god passes away before that of the kindred northern god Apollo and Paieon and Apollo become one.

Nilsson, in *Minoan-Mycenaean Religion* 443, takes 'it as an established fact that Apollo came from Asia Minor.' Important as is the opinion of such a great scholar, the Asiatic origin of such a Hellenic god is disputed by many other scholars, as Nilsson admits in his note on the statement quoted above; and the northern or at least Hellenic or Doric origin of the god has lately been urged by Kern (op. cit. 110 f.) and by Bethe in *Apollon der Hellene*.¹⁵ Kern follows Robert in deriving the name from Doric ἀπέλλα and regards Apollo as an old Dorian god of the herds. If Dorian, then northern, and it is perhaps permitted to dwell again on the ending -ων which we have noted in Paieon, Darron, and Kandaon, all gods of the northern folk. About the actual derivation and meaning of the word Apollo I personally do not feel as sure as does Kern, though the derivation from ἀπέλλα looks as reasonable as any other that has been proposed. But I do feel sure with Bethe, Farnell, H. J. Rose, Kern, and others that Apollo is a Hellenic deity, coming from the north and not from Crete. Farnell¹⁶ remarks that 'we can discern that Apollo came into Hellas with the invaders from the North', and adds later: 'But the furthest northern points to which we can push back the cult of Apollo are Illyria, Thrace, and Macedon.' This origin brings Apollo and the Paeonian god, whether god of healing waters, or healing herbs, or sun-god, very close. It may well be that they were identical.

Kretschmer compares¹⁷ the 'Weiterbildung' with the ending -ων of Ποτειδᾶων with that of 'Ἀλκμάων 'Ἀλκμάν, Μαχᾶων, 'Ἀμνθᾶων, Παιᾶων, hom. Παίῳ, dor. Παίᾶν, 'Ερμάων 'Ερμάν.' This ending -ᾶων is, as Fick remarks, common in the names of heroes. It is found in the *Iliad* in

¹⁵ Wackernagel Festschrift 14 ff. (1924).

¹⁶ *Cults* 4. 99 ff.

¹⁷ *Glotta* 9. 217.

the names of six Trojans, Amopaon (Θ 276), Aretaon (Ζ 32), Helikaon (Γ 123), Hiketaon (Γ 147, Θ 576, γ 238), Lykaon (Γ 333, Φ 34 ff.); of two Paeonians, Apisaon son of Phausios (Λ 578, 582), and Apisaon son of Hippasos (P 348); of one Thessalian, the physician from Tricca, Machaon (B 732, etc.); and of another Greek, Alkmaon son of Thestor (M 394). This list is another evidence of the coherence between the names of Trojans in the *Iliad* and the names from the regions to the north and in the north of Greece.¹⁸

Παιήων¹⁹ stands in the same relation to Παίων as for example 'Ιάων does to 'Ιων. From the form of the name and from the names of other health deities in the tribal ethnic form as well as from the history of *δίζονόμοι* in Greece I think it evident that the word paean owes its origin to the north of Greece and not to Crete.

¹⁸ For a fuller discussion of such names, cf. *Troy and Paeonia*, chapters 5 and 13.

¹⁹ T. W. Allen asks what stayed the Ionic tide in the *Iliad* short of such words as Machaon. The fact that it was stayed in the list of names, mostly Trojan, given above, suggests that the names were actual Trojan (or Paeonian) names that resisted change in the old Ionic. See Allen, *Homer, Origins and Transmission* 101, 106, 109.

ON LONG *i* IN LATIN TERMINATIONS

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[Latin before 170-150 B.C. shows regularly *i* in some terminations and *ei* in others; *ī* (except where of perspicuous origin) comes from pre-Latin *ei*, while *ei* is from earlier *ai* or *oi*. Notably the gen. sg. in *-ī* is (with Ehrlich) an original locative in *-ei*; the passive infinitive in *-ī* had prim. IE *-ei*, being a dative of a consonant-stem or a locative of an *-o*-stem. The Latin dative in *-ī*, older *-ei*, is not identical in ending with the Oscan dative in *-ei*. Older *ie* contracts to Latin *ī*. Defense of the older view that the active infinitive in *-re* is an *-s*-stem with locative *-i*, not (as Hirt thinks) with locative *-ai*.]

It sometimes happens that long established beliefs as to the history of words or forms are upset by later observation of previously overlooked evidence; and equally often it happens that new views are advanced by distinguished scholars, which cannot receive the adherence of more conservative workers in the field. It is a result of a combination of these two factors that impels me here to reexamine the history of Latin inflections containing *ī*, especially as seen in the present passive infinitive; with digressions on related subsidiary problems.

It was long ago recognized, essentially on the basis of the inscription known as the *Senatusconsultum de Bacchanalibus*,¹ that the older Latin inscriptions showed *i* in some terminations and *ei* in others, where normal classical Latin had a long monophthong, *ī*. Scholars are in accord on this: that there is here a real difference of origin, attested consistently by the spellings. Naturally we can appeal only to datable inscriptions for absolutely sure evidence.²

The dividing date is about 170 to 150 B.C.³ Before this time, there

¹ *CIL* 1².581, hereafter referred to as *SCdB*; datable in 189 B.C.

² Trustworthy evidence is not abundant; there are not very many inscriptions which are datable with certainty before 150 B.C., except those dated by linguistic evidence; and to accept such is arguing in a circle. The Scipionic Epitaphs are all suspected of being later compositions, or at least of being later copies, like the Inscription of the Columna Rostrata. Many of the oldest inscriptions come from country districts and may show dialectal peculiarities.

³ Cf. F. Sommer, *Handbuch der lateinischen Laut- und Formenlehre*² 338.

is no confusion in spelling between the forms with *i* and those with *ei*.⁴ It is worth while to list the categories in which each writing is to be observed in these earlier inscriptions, along with other evidence.

Terminations with spelling *i*:

1. Genitive singular of *-o*-stems:⁵ *LATINI, SACRI, URBANI SCdB.*; and many other examples.
2. Genitive singular of *-(i)yo*-stems:⁶ *fili Ter. HT 908, AISCLAPI CIL 12.440*, etc., where the contraction can take place only from *-iī* and not from *-iei*; cf. such plurals as *filiī, filiīs, grātiīs* (Decl. I), which are never contracted in Plautus or Terence, since they had *-iei(s)* at that time.⁷ Similarly the genitive of *Pompeius* is dissyllabic *Pompei*, and that of *Annaeus* (with familiar *-ae-* rather than the correct *Annaius*) is *Annaei* or *Annai*,⁸ since the intervocalic *-j-* = *-iy-* falls out before *i* (long or short), and contraction takes place.
3. Dative singular *ūnī, illī*, etc., corresponding to genitives in *-iūs*.⁹ The proof of the monophthong lies in Lucilius 396-7 Marx¹⁰

hoc illi factum est uni, tenue hoc facies i,
haec ille fecere, adde e, ut pinguius fiat

'this was done by that one, *illi uni*',—make this *i* thin; 'these things they, *illei*, did',—add *e*, that (the representation of the sound) may become fatter (for *ei* with two letters is fatter or broader than a single slender letter *i*).

There is collateral evidence also in the form of the genitive in *-iūs*, which implies an *-ī* + something, cf. the genitive *-os* seen in *NOMINVS SCdB.*

⁴ For the *ei*, there is sometimes found the writing *e* as a sign of progress toward the monophthongal *i* of the city and *ē* of the country; cf. Sommer *Hdb.*² 73.

⁵ Cf. Sommer *Hdb.*² 338; F. Stolz and J. H. Schmalz, *Lateinische Grammatik*⁴ 268-9, revised by M. Leumann and J. B. Hoffmann (referred to hereafter as Stolz-Leumann).

⁶ Cf. Sommer *Hdb.*² ib.; Stolz-Leumann 269.

⁷ Cf. Sommer *Hdb.*² 347, 350.

⁸ *ANNAEI CIL 3.6374; ANNAI CIL 6.11670, 9.4558.*

⁹ Also *-iūs*; length is retained optionally, but seemingly only by the analogy of the dative; yet cf. Sommer *Hdb.*² 443-6.

¹⁰ For this text and interpretation, cf. *American Journal of Philology* 32.283, 289; and for *illī*, *AJP* 34.320-1, and H. Ehrlich, *Untersuchungen über die Natur der griechischen Betonung* 77. I must again uphold the accuracy of Lucilius's orthographic rules for the writing of *i* and *ei*; cf. *AJP* 32.272-93, 34.315-21, *Glotta* 4.299-302.

4. The dative singular *ei*,¹¹ *cui*, *hui-c*, corresponding to genitive *eius*, *cuius*, *huius*. These are based on older **eiyī*, **quoyī*, **hoiyī-ce*; loss of the *-iy-* before *i* permitted contraction to monosyllables with diphthongs, while analogy to the rest of the paradigm kept also the forms *eiī*, *quoyī* which are found in Plautus, notably before vowels, where the ultima is elided.¹²
5. The present infinitive passive, of the type *cūrārī*.¹³ For there is the PAKARI of the Duenos Inscription,¹⁴ most probably an infinitive and not an adjective; the gloss *dasi* 'dari', given by Festus;¹⁵ and the passive form in *-ier*,¹⁶ the only reasonable interpretation of which is that it is an extension of *-ī* by the *-er(e)* of the active infinitive.¹⁷ As this form in *-ier* is common in Plautus and Terence, when *-ei* was still *-ei*, and as *-ei* + *-er(e)* would give *-eyer* *-eer* *-ēr* *-er* and not *-ier*, we must regard the form from which *agier cūrārier* etc. were extended as having ended in *-ī* and not in *-ei*.
6. The vocative singular of *-(i)-yo-*stems:¹⁸ *fīlī*, etc.; and similarly *Pompei* to *Pompeius*, with a diphthong in the vocative, developing by contraction precisely as in the genitive.
7. The accusative plural of *-i-*stems: *fīnīs*, *omnīs*, etc. This ending was later extended to the accusative of consonant-stems, and (rarely) to the nominative of *-i-*stems.¹⁹
8. The ablative singular of *-i-*stems: LOVCARID CIL 1².401, later without *-d*: PARTI CIL 1².583 (123/2 B.C.). This ending was extended to consonant-stems, which normally had *-e* (from loc. *-i*): COVENTIONID SCdB, SANCTIONI CIL 1².583.²⁰

¹¹ I write *ei* without the macron; because it represents either a contracted monosyllable *ei* (diphthongal) from an earlier *eī*, or a dissyllabic *ēi*, kept from contraction by the influence of the other dissyllabic case-forms. Both values are metrically demonstrable in Plautus, as well as spondaic *ēi*, with pronunciation *ei-jī*.

¹² Cf. Sommer *Hdb.*² 445-6.

¹³ For a good general discussion, cf. Sommer *Hdb.*² 593-5; for fuller bibliography, cf. Stolz-Leumann 328-9.

¹⁴ CIL 1².4; cf. LANG. 2.218-9, where the problem of rhotacism in this word is dealt with.

¹⁵ Fest. ap. Paul. 48.19 ThdP = 68.13 M: *dasi* 'dari'.

¹⁶ Occurrences listed in F. Neue *Formenlehre der lateinischen Sprache*³ 3.224-35, revised by C. Wagener.

¹⁷ For other theories, cf. Stolz-Leumann 328-9.

¹⁸ Cf. Sommer *Hdb.*² 343.

¹⁹ Cf. Sommer *Hdb.*² 385, 392.

²⁰ Cf. Sommer *Hdb.*² 375-7; on loss of *-d*, id. 273.

Terminations with spelling -EI:

1. Nominative plural of -o-stems:²¹ FOEDERATEI, OINVORSEI, VIREI *SCdB*.
2. Dative singular of consonant stems:²² RECEI 'rēgī' Forum Insc.,²³ VIRTUTEI *CIL* 1².7.
3. Dative singular *mihī, tibī, sibi*:²⁴ SIBEI *SCdB*. Similarly the adverbs *ibī, ubī, utī*: IBEI, UBEI, UTEI *SCdB*.
4. Dative-ablative plural *nōbīs, vōbīs*, with -beis as a pluralizing of the corresponding singular forms *mihei, tibeī*:²⁵ VOBES *SCdB*.
5. Dative-ablative plural of -o- and -ā-stems:²⁶ as is shown by the lack of contraction in *filīs, grātīs*, and the like, in Plautus and Terence.

Terminations of uncertain orthography:

1. Locative singular of -o-stems: there is no early inscriptional example; but a very plausible emendation of a Plautine verse gives a contracted genitive *Arrētī*, to *Arrētium*, for manuscript *Arretini*, and Servius *ad Verg. Aen.* 10.541 quotes *Lāvīni* (not *Lāvīnī*) from the *Origines* of Cato. This makes it probable that the locative of -o-stems had -i and not -ei in the older Latin.²⁷
2. The first person singular of the perfect indicative active does not appear in early inscriptions of the city Rome²⁸; but it is found in Faliscan PE:PA: RAI 'peperi',²⁹ and in Praenestine DEDI, COFECI,

²¹ Cf. Sommer *Hdb.*² 346.

²² Cf. Sommer *Hdb.*² 373.

²³ *CIL* 1². 1.

²⁴ Cf. Sommer *Hdb.*² 410.

²⁵ Cf. Sommer *Hdb.*² 413.

²⁶ Cf. Sommer *Hdb.*² 347, 350.

²⁷ So Ehrlich *Untersuch.* 71; but Sommer *Hdb.*² 340 declares for a dissyllabic locative -iī in -io- stems and therefore for old Latin -ei, not -ī, on the basis of *Brundisiī* Enn. var. 37, *Sūni(ī)* Ter. *Eun.* 519. But *Brundisiī* may be an early remade form *metri gratia*, and *Sūn(ī)* with elision is just as good as *Sūni(ī)* in the Terentian passage.

²⁸ Cf. Sommer *Hdb.*² 574. The earliest occurrence is PETIEI alongside ACCVMVLAVI, GENVI, OPTENVI *CIL* 1².15, which is one of the Scipio Epitaphs, but is later than 150 B.C. The second person singular likewise ends in -ī in classical Latin, getting the long vowel by analogy of the ending of the first person; the oldest example is GESISTEI 'gessisti', *CIL* 1².10, about 175-165 B.C., which would point rather to original -ai except that it is in one of the Scipio Epitaphs, and is therefore unreliable; cf. fn. 2.

²⁹ Published by G. Herbig, *Indogermanische Forschungen* 32.86. There seems no reasonable doubt of his interpretation, though the final letter of the word is damaged.

COEPI.³⁰ The two endings are in direct conflict with each other, which indicates difference of origin unless analogy has stepped in to modify one or the other. Unfortunately no corresponding forms are found in the extant remains of Oscan and Umbrian, except the *manafum* 'mandavi' of the Oscan Curse of Vibia,³¹ which has an entirely different termination.

The origin of certain of these endings is quite clear. The -EI of the nominative plural is an earlier -oi, identical with that seen in Greek οἱκ-οι; the dative-ablative plurals are identical in formation with Greek οἱκ-οις and χῶρ-αις from earlier -ōis and -āis. The locative singular of -o-stems had either -ei or -oi, cf. Greek οἱκ-ει, οἱκ-οι. The dative singular of consonant-stems and that of the personal pronouns seems to be identical in ending with the Oscan forms, such as *patereī* 'patri', *medikeī* 'iudici', *leginei* 'legioni', *tfei* 'tibi', *sifeī* 'sibi', which show an origin from -ei; though this equation of the Latin and the Oscan endings is, as will be seen later, only illusory.

Of the forms with i, the last three have a clear history. The vocative of the type *fīlī* has ī contracted from *ie*. The accusative plural of -i-stems has -īs from -īns with loss of the *n* before final *s*, and compensatory lengthening. The ablatives in -īd got their ending by analogy to ablatives in -ōd, of -o-stems. Of the others, the genitives of the types *sacrī* and *fīlī* doubtless had one and the same ending. The datives of the types *ūnī* and *ei* may be assumed to have had identical endings. The passive infinitive may or may not agree with the datives. The ending of the perfect indicative must be passed over as unclear.³²

In considering the forms of uncertain or disputed history, let us start with the infinitive. The old theory was that the active infinitive was a

³⁰ Occurring in *CIL* 12.60, 560; cf. also *LANG.* 5.22.

³¹ C. D. Buck, *Grammar of Oscan and Umbrian*, No. 19; R. S. Conway, *Italic Dialects*, No. 130; R. von Planta, *Grammatik der oskisch-umbrischen Dialekte*, No. 128.

³² It is interesting to note that L. H. Gray, in *LANG.* 6.230, on purely theoretical grounds, posits accented -ei and unaccented -oi as endings of the first person perfect middle, appearing in (active) Latin *vīdī*, OChSl. *vědě*, as well as in the Faliscan and Praenestine forms cited above. Now -ei would given Praen. -i, but either -oi or -ai would more easily give OChSl. -ě (K. Brugmann *Grundriss d. vergl. Gram. d. indg. Spr.* 12.190-2); and Fal. -ai requires -ai; Gray posits use of -ai in thematic presents middle. Possibly the -a of the active (cf. Greek *φοῖδα*) had in some Italic dialects an influence on the middle ending before the latter entirely supplanted it. Latin presumably, but not certainly, agrees with Praenestine, as the nearer dialect linguistically as well as geographically.

locative of an *-es*-stem, with ending *-i*, as in *cūrāre monēre agere finīre*; and that the passive infinitive was a dative in *-ai*, to the same *-es*-stem as in the passive, except in the third conjugation, where it was a case of a root-noun, as in *cūrārī monērī finīrī* but *agī*. This was seen to be untenable when the testimony of PAKARI, *dasi*, *agi-er*³³ was appreciated. Thurneysen³⁴ sought to explain this *-ī* of the infinitive as a contraction from *-ie*, equating the form with the Sanskrit verbals in *-ya*: thus *-ajya* = Latin *agī*. The form in *-ier* he regarded as having the same ending, plus the medio-passive formative *-r*, before which, according to his theory, there was no contraction of *-ie-* to *ī*. His view is accepted by Sommer³⁵ and by Leumann³⁶.

But a careful examination of his theory, although it accounts for the ending, reveals points of weakness. We must of course admit that medial and final *ie* contracted in Latin to *ī*³⁷; but there is no reason to believe that the contraction was inhibited by a following *-r*. No precise parallel can be given; but *finīre* from **fini(y)esi* and other forms of the fourth conjugation show that an *r* derived by rhotacism did not inhibit the change. On the other hand, we must ask what is this Sanskrit form in *-ya* with which Thurneysen would equate the Latin passive infinitive? First of all, it is a special Sanskrit form, without an analogue in Iranian; it is commoner in later Sankrit than in Vedic³⁸; it is used only in compound verbs, never in uncompounded; it is used not as an infinitive, but as an indeclinable participle, being termed a 'gerund'. Although infinitives and other verbal nouns are of very varying formations, and curious equivalences show themselves in widely separated languages, the Sanskrit form in *-ya* does not appear to be inherited from the primitive IE, but to be a special Skt. formation of a locative in *-i* to a root-noun, with an added particle **a* (primitive IE **e* or **o*)³⁹; this earlier locative survives in the Vedic verbals *-khyāt* to root *khyā-*, *-cākṣi* to *cakṣ-*, *budhī* to *budh-*, *-mé* and *-māt* to *mā-* 'measure',

³³ As already given; cf. ftnn. 13, 14, 15, 17, supra.

³⁴ *Verba auf -io* 46 (not accessible to me; cited by Sommer *Hdb.*² 593); so also A. Fick *Göttingische Gelehrte Anzeigen* 1883.586.

³⁵ *Hdb.*² 593; *Kritische Erläuterungen* 173.

³⁶ Stolz-Leumann 328.

³⁷ See Excursus I, infra.

³⁸ According to the listings in W. D. Whitney, *The Roots, Verb Forms, and Primary Derivatives of the Sanskrit Language*.

³⁹ A similar particle *ā* was added to many locatives in Iranian as a formative, but this was the long vowel and not the short one, and the Iranian locatives thus formed were regular paradigmatic forms.

-yāī to *yā-*, *-ūṣi* to *vas- uṣ- uch-* 'shine', *-sāt* to *sā- si-* 'bind', and the dubious *-pāl* to *pā-* 'drink'. All of these save *-ūṣi* are accompanied by a form in *-ya*: *-khyā'ya*, *-cāk'ya*, etc.⁴⁰; which confirms the origin here assumed for the verbals in *-ya*.

Meantime evidence has accumulated that the ending of the dative of consonant-stems in primitive IE was *-ei* rather than *-ai*⁴¹. Meillet-Vendryes⁴² now again assert that the infinitive passive is a dative in *-ei*, identical with that dative of consonant-stems: without considering that the infinitive had *-i* when the dative still had *-ei*, or else discrediting the evidence of the difference. We must however face the other problem, why the dative types *ūnī* and *ei* had *-i* in the oldest Latin, while the consonant-stems and personal pronouns still had *-ei*; and this can be solved only on the assumption that the two groups of forms had different endings, which developed differently in primitive Latin.

We pass to still another point, the *-o*-stem genitive in *-ī*. It is everywhere acknowledged that no restoration of the primitive IE genitive of *-o*-stems can be attained⁴³, because of the wide divergence of the separate languages: Sanskrit distinguishes the genitive singular from the ablative in this class of nouns alone; Avestan reveals a similar situation, though an analogical ablative form is developed in some other stem-classes; in Lithuanian, the present-day genitive of *-o*-stems is by origin the ablative, identical with the form used in Sanskrit, Avestan, and Latin, as ablative; Greek, like Sanskrit and Avestan, shows a genitive ending which apparently spread from pronouns. But the genitive singular was originally probably only the nominative form used with a following enclitic noun which it modified⁴⁴: thus nom. **dyéwos* became **dyēús* (Skt. *dyāús*, Greek *Zeús*), but genitive **dyewós* became **diwós* (Skt. *divás*, Greek *Διφός*). This theory must be used with almost infinite variations, because of the deformations resulting from the ablaut processes, and no

⁴⁰ Data from Whitney, op. cit.

⁴¹ So H. Hirt, *Indogermanische Grammatik* 3.51-2; so also previously, inter alios, A. Meillet and J. Vendryes *Traité de Grammaire Comparée des Langues Classiques* 421-2, 475. Perhaps the belief in dative *-ai* is a hangover from the time when the Skt. vocalism *a* (without separate *o* and *e*) was believed to be original; then when the separate existence of *e* or *a* was established for the primitive speech, the *a* remained as a general symbol for any vowel of the group whose exact quality was difficult or impossible to determine.

⁴² Op. cit. 333-4.

⁴³ So Stolz-Leumann 269.11-2, Ehrlich *Untersuch.* 67.10-2, etc.

⁴⁴ So N. van Wijk, *Der Nominale Genetiv Singular*, Zwolle, 1902; cf. H. Hirt *Idg. Gram.* 3.145.

deformations can be allowed which will make the words unusable because not readily understood; analogy steps in and prevents. Now in the *-o*-stems there was a special difficulty; for the tendency of this process was to make a consonant-stem out of the nominative. If the vowel survived in the nominative, then the genitive could be but identical with that nominative; for this reason other forms, more distinctive, were created, or other already existing forms were appropriated for this case-usage, and these differed in the various branches of Indo-European.

The *-ī* of the Latin genitive is usually traced back to a form with primitive IE *ī*,⁴⁵ for which two identifications have been proposed: that it is a feminine nominative in *-ī*, corresponding to a masculine *-o*-stem, like Skt. *devī* to masc. *devas* 'god', used as an indeclinable modifier⁴⁶; or that the Latin form is identical with the Skt. adverbs in *-ī*, used especially with forms of the verb *kr* 'make', cf. Latin *compendī facere*⁴⁷. Neither of these theories is very convincing. It is regrettable therefore that Ehrlich's theory as to the origin of this genitive ending has met with disapproval or been passed over with scant consideration by later writers⁴⁸. Ehrlich⁴⁹ maintains that it is not necessary to assume that all three diphthongs, *ai oi ei*, developed in the non-initial syllables in precisely the same way and at precisely the same date; that post-tonic *ei*, in fact, became a monophthong before the time of our earliest Latin inscriptions, and that *ai* and *oi*, having more changes to undergo before reaching the monophthongal pronunciation, were still diphthongs written *ei*, or a long close *e* written *e*, down to 150 B.C.; that accordingly the Latin genitive in *-i* may perfectly well be an old locative in *-ei*, a well-recognized form found in a number of languages. His examination of the extant forms attested as of before 150 B.C. produces nothing to conflict with this theory; but he finds also some confirmation of his theory in the Oscan-Umbrian endings⁵⁰. In the genitive singular of *-o*-stems, Oscan has *-eis* and Umbrian has *-es*, later *-er*; both of these come from *-eis*. This *-eis* is easily understood as locative *-ei* with the

⁴⁵ So all recent authorities, seemingly, except Ehrlich.

⁴⁶ So Sommer *Hdb.*¹ 371.

⁴⁷ So J. Wackernagel *Mélanges de Linguistique offerts à F. de Saussure* 125-52.

⁴⁸ Cf. Sommer *Hdb.*² 340-1 and *Krit. Erl.* 103-5; Stolz-Leumann 269 init.; J. Schrijnen *De Latijnsche Genitief Singularis van de O-Stammen*, cf. *LANG.* 5.196; Meillet-Vendryes 408.

⁴⁹ *Untersuch.* 66-79. The Celtic genitive in *-i* may come from *-ei* as well as from *-ī*, cf. Brugmann *Gdr.* 1².239. The evidence of Messapian and other slightly known languages is too dubious to be used against Ehrlich's theory.

⁵⁰ *Untersuch.* 76-8.

addition of the *-s* which terminated all other Oscan and Umbrian genitives singular⁵¹; which is a simpler explanation than that usually given, of a transfer of the entire *-eis* from the *-i*-stems to the *-o*-stems.

Not only does Ehrlich's theory give for the first time a satisfactory explanation of the *-o*-stem genitive, but it opens the way to the interpretation of other types of formation. The datives *ūnī* and *ei*, with others of their groups, may then have the dative *-ei*, becoming *-ī* before the oldest inscriptions. The infinitives *agī*, *cūrārī*, etc., may be forms in *-ei*, which can be either the dative in *-ei* to a consonant-stem, or a locative to an *-o*-stem⁵²; there is a similar ambiguous form in Vedic Sanskrit, found in about sixty roots, and almost exclusively in compounds: *-āje*, *-krāme*, *yujé*, *vā'he*.

We come back to the conflict between the early Latin *-ī* of datives *ūnī*, *ei*, etc., and the *-ei* of datives *RECEI*, *VIRTVTEI*, *SIBEI*. It is possible to assert at once that there is a difference of origin. Now in addition to dative *-ei* and locative *-i*, there was also an ending *-ai*, seen notably in Greek infinitives *ἕμμεναι*, *εἶναι*, *φέρεισθαι*, etc. and in the adverb *χαμαί* 'on the ground' (Latin *humī*). Hirt⁵³ assigns this ending to locative use only; but this is not necessary, especially in view of the use of the infinitive in Greek to express purpose, which suggests a dative form. Case-forms shift easily from one case to another: Greek dative *ποδί* is a locative form; Avestan instrumental forms assumed the functions of the accusative, sometimes of other cases; the Lithuanian genitive singular of *-o*-stems is an ablative; and so on. Further, as dative and locative were not distinguished in Hittite by difference of form⁵⁴, it seems reasonable that *-ai* was an alternative ending which might mark either the dative or the locative⁵⁵, varying with the normal *-ei* of the dative and the *-i* of the locative.

The equivalent dative endings *-ei* and *-ai* both survived into Italic. The former spread to all datives of consonant-stems and of pronouns, so far as they are extant, in Oscan and Umbrian; but the *-ai* ending spread in primitive Latin to all consonant-stems and to the personal

⁵¹ On the other hand, Latin extended the genitive *-ī* of *-o*-stems to *-ā*- and *-ē*-stems.

⁵² The Oscan infinitives *deicum* 'dicere', *acum* 'agere', etc., are similarly ambiguous, being either accusatives of *-o*-stems or of consonant-stems, since the *-o*-stem ending of this case was in Oscan transferred to consonant-stems.

⁵³ *Idg. Gram.* 3.50.

⁵⁴ Verbal communication of E. H. Sturtevant.

⁵⁵ A similar lack of differentiation is seen in Oscan dat. *altrei* and loc. *alttrei*, both with the ending *-ei*.

pronouns. The datives *ūnī* and *ei* and their congeners were exempt from this spread of *-ei*, because they were protected by the genitives in *-ius* and *-jus*. Thus the endings of Latin *patrī* and Oscan *patereī* are not historically identical, nor are those of Latin *sibī* and Oscan *sifeī*; but there is nothing here which can per se vitiate the theory just advanced. For closely related dialects often differ very materially in matters of paradigm. Oscan transferred the *-o*-stem endings of the accusative and ablative singular to the consonant stems, Umbrian did the same for the accusative but not for the ablative, Latin did this in neither form. Latin transferred the *-i*-stem ending of the nominative plural to consonant-stems, but Oscan and Umbrian kept the original forms in both. Latin remade the nominative plural of the *-o*-stems and the *-ā*-stems after a pronominal model, but Oscan and Umbrian kept the original forms. Other parallels could be given from closely associated Greek dialects, where for example the nominative and the genitive singular of masculine *-ā*-stems vary in their terminations⁵⁶; but it would be only slaying the slain.

EXCURSUS I. On Latin *ī* from earlier *ie*.

The only reasonable explanation of *tībīcen* is that it stands for **tībīecen*, weakened from **tībīo-can*; that is, that *ie* was contracted to *ī* in Latin⁵⁷. The acceptance of this formula makes clear the development of the fourth conjugation: *fīnīs* from **fīnī(y)es(i)*, *fīnīmus* from **fīniemos* from **fīnī(y)omos*, etc.; and the vocative of *-io*-stems: *fīlī* from **filie*. It gives a satisfactory explanation of the *-ī-* in *castīgō*, *vestigium investigō*, *fatīgō*, *fastīgium*, where the root of *agō* has been added to *-i*-stems, giving *-i-ag-* which weakened to *-ieg-* and then contracted to *-īg-*⁵⁸. It makes no difference whether the *ie* is for earlier *ye* or for earlier *iye*, since both became *ie* in primitive Latin⁵⁹.

The group *-ie-* was retained if the *i* stood in the initial syllable: thus *pietās*, *hiems hiemis*, *hietō*. The group *-ie-* was retained by analogy in other positions: *abietem*, *arietem*, *parietem*, *mulierem*, by influence of

⁵⁶ Cf. C. D. Buck *Greek Dialects* 81.

⁵⁷ So H. Jacobsohn *Philologus* 67.524-7; cf. W. Schulze *Zur Geschichte lateinischer Eigennamen* 456; Sommer's doubts, *Hdb.*² 117, 100-1, *Krit. Erl.* 28, are not justified.

⁵⁸ So F. Muller *Altitalisches Wörterbuch*, s. vv.; but A. Walde *Lateinische Etymologisches Wörterbuch*,² s. vv., admits only a transferred *-īgō* for *castīgō* and *fatīgō*.

⁵⁹ A difference between the development of postconsonantal *-iyo-* and that of *-yo-* in Latin, is hardly thinkable, despite Sommer *Hdb.*² 101 init.

the nominatives in *-iēs* (*mulier* with analogical rhotacism and shortening before *-r*)⁶⁰. *Societās* and similar words have *-ie-* by analogy of *pietās* or even of **sanetās*, later *sānitās*, and other such words⁶¹; or it is even possible that **sociitās* was restored after *sānitās* etc., and that *-ii-* was dissimilated to *-ie-*. *Variegō* kept *-ie-* by analogy of *varietās* and *varius*. *Facientem* and similar participles kept *-ie-* after *faciēns faciēbat* etc., which had *ē*⁶². *Ambiegnus*⁶³, defined by Festus as 'having a lamb on each side', kept *-ie-* by the analogy of *ambi-* (as in *ambidēns*, another ritual word) and of *agnus*. Inscriptional *CONIECIANT*⁶⁴ was by influence of such verbs as *cōnficiant*, with the *-a-* of *jaciō* weakening only to *-e-* because of the preceding *i*; or perhaps *-ie-* is here a dissimilative writing for *-ii-* = *ji*.

EXCURSUS II. On the present infinitive active of Latin.

There is a collateral point to be made about the active infinitive of Latin. Hirt⁶⁵ maintains the view that the ending *-re* comes from unaccented *-sai*, with locative *-ai*, rather than from *-si*. By this view it is possible to equate the infinitive *vīvere* and the like with the formation seen in Sanskrit *jīvāse*⁶⁶. But the equation is not completely cogent, for it rests upon the premise that the Skt. forms are locatives in *-ai*; but the *-s-*stems in Skt. have a locative in *-i*, and it is their dative that ends in *-e* (from a diphthong). Further, the Vedic texts employ many infinitives, and notably those ending in *-e*, to denote purpose⁶⁷, which is a

⁶⁰ The nominatives *abiēs ariēs pariēs* may be taken as ending in *-iess* for *-iets*, the final syllable being closed and therefore long by position, but the vowel being short. If this be correct, then it is likely that *ie* did not contract when followed by two consonants, i.e., when the *e* was in a closed syllable. The pre-form of *mulier* was of course **muliēs*, with a long vowel.

⁶¹ F. Skutsch *de Nominibus latinis suffixo -no- ope formatis* 14³ f. (not accessible to me; cited by Sommer, *Krit. Erl.* 28), *Archiv f. lat. Lexikographie* 12.206.

⁶² Or because the *e* stands in a closed syllable, cf. fn. 60.

⁶³ If so correctly spelled; the testimonia are: *ambegni bos et verbix appellabantur, cum ad eorum utraque latera agni in sacrificium ducebantur*, Fest. ap. Paul. 4.7-8 ThdP = 4.16 M (ubi vide app. crit.); *ambiegna bos apud augures, quam circum aliae hostiae constituuntur*, Varro *de Lingua Latina* 7.31.

⁶⁴ *CIL* 12.583. The normal development of *jaciō* in compounds was to *-iciō*, cf. *Transactions of the American Philological Association* 43.38-40; also Sommer *Hdb.* 2 99, 133-5, 486.

⁶⁵ *Idg. Gram.* 5.76.

⁶⁶ So F. Solmsen, *IF* 4.240-52, esp. 250, with references; against this view, Sommer *Hdb.* 2 591. The Skt. infinitive of this type is found in 19 roots, uncompounded, and all used in Vedic texts, according to Whitney, op. cit.

⁶⁷ So E. W. Hopkins, 'The Vedic Dative Reconsidered', in *TAPA* 37.87-120.

dative function rather than a locative function. Finally, there is no convincing evidence that a final diphthong ever became a short vowel in Latin.

Hirt⁶⁸ adduces the Latin pairs *herī here*, *rūrī rūre*, *peregrī peregre*, *temperī tempore*, as showing a living variation in the locative between *-ai* and *-i*. He sees further evidence of this diphthong in the view⁶⁹ that the infinitive in *-ere* sometimes has a long final vowel in Plautus. But this long final in *-ere* is extremely rare, and is found only before the main break in the verse or at the break between speakers, where syllaba anceps is permissible⁷⁰. The other examples are susceptible to other interpretations. Since the locative of consonant-stems, ending in *-e* from *-i*, assumed ablative function in early Latin, a double meaning 'in' and 'from' developed: in Plautus and Terence, *rūre* and similar forms sometimes still had the locative value⁷¹. But this was an inconvenient ambiguity; and it was natural that the ending *-ī* should be taken over from *-o*-stems in the locative value, making the locative of consonant-stems identical (after 150 B.C. at any rate), with the dative—an identity not leading to any confusion in the space relations. The new locative *rūrī* had moreover the support of the semantically related *domī*; *lūcī* and *temperī* may take after *vesperī*—for *domī* and *vesperī* are *-o*-stems, and properly had locatives in *-ī*, from *-ei* or *-oi*. *Peregrī* is a phrase of the preposition *per* and the locative *agrī*, an *-o*-stem which, seems to have been contaminated with the ablative adverbs in *-(d)*, producing also *peregrē*⁷². In *here* and *tempore* the length of the final vowels is in the older language hard to determine; but if the *-e* was long, contrary to the general belief of scholars, it may very easily have been due to the influence of the finals of *hodiē*, *diē* (*septimī*), and other phrases with *diē*, used in a locative meaning.

Yet the great objection to *-sai* as origin of the infinitival *-re* is the fact that there is no evidence elsewhere that an original final diphthong wore down to a short vowel, especially as early as the time of Plautus⁷³.

⁶⁸ *Idg. Gram.* 3.50.

⁶⁹ F. Solmsen, l.c.

⁷⁰ Sommer *Hdb.* 2 591; Stolz-Leumann 328.

⁷¹ G. M. Lane, *A Latin Grammar for Schools and Colleges*, revised edition by M. H. Morgan, gives some examples, §1331, §§1344-5; thus Plaut. *Cas.* 110 *rūre* 'in the country'.

⁷² So Sommer *Hdb.* 2 340, after F. Skutsch *Jahrbücher f. klass. Philologie*, Suppl. 27.97 ff.

⁷³ I am not denying the short syllables and short vowels resulting from iambic shortening, which however is not the phenomenon maintained by Hirt.

Hirt seems to be driven to this theory by his reluctance to admit that a final short *-i* may sometimes survive in Latin as *-e*, even if it was not accented in primitive IE. This point is for convenience relegated to Excursus III.

I therefore hold fast to the conventional view that the Latin infinitive active in *-re* is a locative in an *-es*-stem, ending in *-i*.

EXCURSUS III. On *-ai* and *-i* in Italic.

Hirt⁷⁴ presents the view that primitive IE *-ai* became Latin *-ī* if it bore the IE accent and Latin *-ē* if it was unaccented in IE; and that primitive IE *-i* became *-e* in Latin if it bore the IE accent, and was lost if it was unaccented. In considering this view, we must not forget that Hirt believes that the original IE accent persisted in Italic until the change to the Latin accent which is regulated by the length of the penultimate syllable: a theory which I cannot accept, as will be set forth in Excursus IV. We return however to Hirt's argument on *-ai* and *-i*.

His chief examples for accented *-ai* are the following: *dedī* = Skt. *dadé*, *humī* = Greek *χαμῑ*. For unaccented *-ai* he proposes the active infinitive, *vīvere* = Skt. *jīvāse*; the second singular passive indicative ending as in *sequere* = Skt. *sācase*, with primary *-sai* rather than secondary *-so*; *dedēre* = Skt. perfect *dadire* (sic, apud Hirt). With regard to the ending in *sequere*, he states that if it has *-re* from *-so* this is the only example of *-o* becoming *-e* in Italic. He passes by the imperative *sequere*, which as an injunctive should have the secondary ending, and the nominatives *iste*, *ipse*, perhaps also *ille* (older *olle*), which more probably go back to *-o*. *Dedēre* may have had rather *-ro* or *-ri*; at any rate Skt. *dadiré* (sic) has an accented and not an unaccented ending, a fact which escaped Hirt.

For the development of final short *i*, and also of short *i* before a final *s*, Hirt believes in a similar influence of the primitive IE accent: that unaccented *i* was lost, but accented *-i* became *-e*, while accented *-is* remained unchanged. It seems hard to maintain this when we consider the development of **auti* in the Italic dialects: Latin *aut* and Oscan *aut*, with loss of the final vowel, but Oscan *auti* and Umbrian *ote*, with retention. Hirt seeks to apply too rigidly the 'phonetic law', or, as I prefer to term it, the 'phonetic formulation'; there are factors making for variation which he overlooks. Thus the loss of a final vowel normally left a final consonant in contact with an initial

⁷⁴ *Idg. Gram.* 3.50-1, 5.75-6. Meillet-Vendryes 333-4 by implication deny the development of (unaccented) *-ai* to *-ē* in Latin.

consonant or group of consonants; this might give an unpronounceable combination, or one which would undergo assimilations and in the pronunciation would fail to convey the meaning clearly. For example, **pedi*, locative of the word for 'foot', shows by its ablaut grades that the final was originally unaccented, despite Greek *ποδί* (with *-o-* ablaut grade in the radical syllable); but the *-i* survived in Latin ablative *pede* because a form **ped*, with loss of the unaccented *-i*, would be subject to assimilations of the final consonant to the following initial consonant, and would become unintelligible in practice. Similarly, a syncope of the *-i-* before a final *-s* would often throw consonants together into a group which would materially change and obscure the meaning of the word; what would *hostis* be if the *-i-* of the ultima were lost, as it is in *ars*, *fors*, *mors* from **artis*, **fortis*, **mortis*? To return to Oscan, we see there two developments of **auti* as products of differing phonetic environments, and then a differentiation in the meaning of the two products: *aut* 'at', *auti* 'aut'.

EXCURSUS IV. On the primitive IE accent in Italic.

Hirt⁷⁵ believes that the accent of primitive IE persisted into Italic and into primitive Latin, which perpetuated the original accent with only a few changes, in accord with the principle of the penultimate law. The losses of vowels (syncope) and changes of quality (weakening) of vowels which are seen in Latin in non-initial syllables he explains as follows: Most of these changes are in the second element of prepositional compounds; but the IE accent stood on the prior element, and hence warrants these changes. In Latin *dexter*, from prim. IE **deksiterós*, with accent on the final syllable, there may have been in primitive Italic a secondary accent on the first syllable which ousted the primary accent on the ultima.

This argument on *dexter* is weak. And there are a number of examples which do not fall under his formulation: *euntem* from a form accented like Greek *ἔντα*; *Achīvē* borrowed from Greek *Ἀχαιῶι*, where the only vowel which does not change is that which is accented neither in Greek nor in Latin; *olīva* and *balneum*, borrowed from Greek *ἐλαίφα* and *βαλανεῖον*, in which a new initial accent develops in Latin despite its location elsewhere in the Greek words, and despite also a long penult in the Greek words, which failed to attract the accent in early Latin. No, we cannot explain the permanence of the initial syllable

⁷⁵ *Idg. Gram.* 5.72-4; cf. *LANG.* 5.263.

in Latin and the Italic dialects without the assumption of an accent on that initial syllable in the period preceding that which is illustrated by the extant remains.

It is a corollary to this that Hirt's views on the development of *-ai* and *-i* in Italic cannot be maintained.

BOOK REVIEWS

Studies in Honor of Hermann Collitz. Presented by a group of his pupils and friends on the occasion of his seventy-fifth birthday, February 4, 1930. Pp. xii + 331. Baltimore: The Johns Hopkins Press, 1930.

It is a well deserved tribute that has been extended to the distinguished scholar Hermann Collitz, the first President of the LINGUISTIC SOCIETY OF AMERICA, who has done so much to enrich linguistic science in many fields. Those who were privileged to hear his discussion of papers at the Chicago meeting of the Linguistic Society in the year of his presidency, when he showed his intimate knowledge of virtually every topic presented by the readers, can never cease to marvel at the width and the soundness of his learning.

The present volume contains, in addition to the usual biographical and bibliographical material, thirty scholarly papers, by twenty-eight American and two foreign scholars, of whom sixteen are members of the Linguistic Society; fifteen of these and one other have written on linguistic topics. The other fourteen papers deal with literary themes.

E. H. Sturtevant writes on 'Neuter Pronouns referring to Words of Different Gender or Number' (16-24), and accumulates from many languages a mass of examples which seem to establish his theory that this is a usage inherited from the primitive IE. His starting point was the Umbrian *porse*, used as a general relative nom. and acc., for either number and any gender (feminine antecedent does not occur, but this is probably a mere accident); he might have compared the similar English *that*, Modern Greek *ποῦ*, German colloquial *wo*, possibly also Norwegian *som*—all usable within the same range.

Franklin Edgerton, in 'Dialectic Phonetics in the Veda: Evidence from the Vedic Variants' (25-36), discusses forms and words which in some feature belong to later Indic dialects, but have crept into the Vedic texts; the extent of this penetration has remained unknown until the exact results have been determined by the study of the Vedic Variants, the first volume of which is now in the press, to be issued as a special publication of the Linguistic Society.

Truman Michelson, in his 'Linguistic Miscellany' (37-42), treats a number of points in Indic and American Indian languages; notably he

makes some additions to Whitney's *Root-Book of Sanskrit*. G. M. Bolling, in 'A Matter of Semantics' (43-7), shows that Greek *σμερδαλέος* and *σμερδνός* start as applied to loud noises, from a root which in Balto-Slavic changes to the meaning 'stink' through the connecting link of intestinal noises.

Eduard Sievers of Leipzig, our distinguished honorary member, writes 'Zur Duenosinschrift' (48-62), proposing a rhythm for the inscription and an interpretation which in part is new to me: *Eo visat deus, cui me mittat. Ni in te comis virgo siet, ast te (deus ille) nobis jubet uti pacari (= ad pacandum) vobis. Bonus me fecit in manum ire (= ut in manum eat) bono: ne me malus dato!* I can hardly believe that *IOPET* is *jubet*, nor that *OITESIE* is **uterie(r) = uti*. I am almost equally dubious about *IO* 'thereat, at him'; about failure to make a pause after *EINOM* 'ire', which has *-m* before an initial consonant; and about the *t-* of *TATOD* 'dato' (though these last two are not original with Sievers). It is only fair to state that Sievers's main point is metrical and not epexegetical, and that he gives also metrical versions of passages from the Umbrian Tables of Iguvium and from the Oscan Tabula Bantina and Cippus Abellanus.

Eduard Prokosch, in 'The Germanic Vowel Shift and the Origin of Mutation' (70-82), gives a limited defense of the old vowel-triangle against Russell's views (cf. Sturtevant's review, *LANG.* 5. 33-6), and emphasizes that the changes of the long vowels in Germanic were toward the back of the vocal apparatus, while those of the short vowels were in the main toward the front; to which he adds some valuable exposition of the interchanges of short *e* and *i*, *o* and *u*.

Leonard Bloomfield interprets 'Salic *litus*' (83-94) 'person of semi-servile class, intermediate between serf and free Frank', as from Germanic **līpu- *lepu-*, a derivative of which is seen in German *ledig* and in French *liège*, remodeled after an unknown word, perhaps the name of a conquered tribe.

E. H. Sehrt explains the puzzling 'Genitiv Plural auf *-ē* im Gotischen' (95-100) as an instrumental form, replacing the genitive plural in *-ō* by analogy of the doublet forms *-ē* and *-ō* in the instrumental singular of certain stem-classes. A. M. Sturtevant gives 'Gothic Syntactical Notes' (101-13), on some twelve cruces of the Gothic text. E. E. Ericson discusses 'The Use of Old English *swa* in Negative Clauses' (159-75), finding that *swa* as conjunction always stands at the head of its clause, and that *swa* at the head of its clause is almost invariably a conjunction. Samuel Kroesch, in 'Change of Meaning by Analogy'

(177-89), develops the theme that new meanings of words are often merely translated from the usages in another language, and not independent natural developments within the language itself; cf. German *Zunge* 'tongue', which took the meanings 'language' and 'peninsula' from Latin *lingua*, which had those derived meanings in addition to the original one.

Taylor Starck treats the 'Wortschatz des AHD Tatian und die Übersetzerfrage' (190-202) and on the basis of differences in vocabulary apportionments the text approximately among the several translators who shared the work of translation. R. J. Kellogg deals with 'The Phonetic and Morphological Settings of the Middle High German Clit Preterits' (212-43), such as *gie fie lie* alongside *gieng fieng liez*, giving a detailed history of the forms, with lists of their occurrences. D. B. Shumway, in 'Old Preterites of the First Ablaut Class in the 1671 Wittenberg Revision of the Lutheran Bible' (244-7), lists the preterits of the type *bleib* to present *bleiben* which are there used. Kemp Malone deals with 'Anglist and Anglicist' (325-9), and proposes a systematic use of the suffixes, thus: *-ist* 'a native or inhabitant of, or one well acquainted with (a country)'; *-icist* 'one well acquainted with (a country's) language or literature, or an authority on its linguistics or philology'. Louise Pound seeks to find 'The Etymology of *Stir* "prison"' (330-1), a word of the criminal jargon, as a derivative of OE *stēor*, *stīer*, *stȳr*, defined in OE dictionaries 'steering, guidance; rule, regulation; restraint, discipline, check, correction'; the same root from which comes Modern English *steer*.

ROLAND G. KENT

Festschrift der 57. Versammlung deutscher Philologen und Schulmänner in Salzburg vom 25. bis 29. September 1929 gewidmet. Pp. 215. Baden bei Wien: Rudolf M. Rohrer, 1929.

Among the papers in this volume, of which Professor Richard Meister of Vienna is the responsible editor, though his name does not stand on the title-page, are several on linguistic subjects, which might easily escape the notice of linguistic scholars because of the place in which they have appeared. Professor Paul Kretschmer (pages 5-26, with 6 plates) interprets the *δέπας ἀμφικύπελλον* of Nestor on linguistic and archaeological grounds as a twin cup, with two cavities for holding liquids. Professor M. H. Jellinek (pages 61-3) discusses 'Momentane und durative Adjektiva', taking exception to the use of *war* in 'Als er das hörte, war er überrascht', the title of an article in the *Germanisch-Romanische Monatschrift* 15. 66, and showing that the choice of *sein* or *werden* de-

pendes on the nature of the predicate adjective. Professor Norbert Jokl (pages 105-37) discusses 'Balkangermanisches und Germanisches im Albanischen'; an article important for its field, but not easily susceptible to summarization. Professor Eugen Oberhammer (pages 152-7) traces the origin of the name *Austria* in its latinization for *Ostarrîki*, to its use in northeastern Italy. The other nine articles deal with literary criticism, philosophy, mathematics, etc.

ROLAND G. KENT

Busze; bedeutungsgeschichtliche Beiträge zur Kultur- und Geistesgeschichte. Pp. 296. By JOSEF WEISWEILER. Halle (Saale): Max Niemeyer Verlag, 1930.

Semantic investigations of the kind presented here make rather severe demands upon the author. It is not enough that he be a linguist, he must also be a psychologist, an anthropologist, a folklorist, and a historian, in short, a *Kultur- und Geisteshistoriker*. It is a comparatively simple matter to determine a semantic change which takes place today, provided one is acquainted with the particular circumstances which brought it about. To determine such a change in primitive times or in the medieval period is by no means so simple. It is necessary to understand customs and usages, to reconstruct, as nearly as possible, conditions as they were at the time the expression was first used. For that reason, particularly, studies of this kind will become not merely aids to the lexicographer of the future, but independent, permanent contributions to linguistic science. Obviously, in a field so difficult and as yet so little explored as that of semasiology, only the study which takes up one meaning, or one word, or one limited group of words has the chance of arriving at definite and practical results with regard to the semantic relationships involved. That fact the author of the study under discussion has recognized, with the result that he has given us a work which may well serve as a model for investigations in this field.

The study is concerned with the development of meaning of the Germanic stem **bōtō* and its related forms **bata*, **batiza*, **bōtjan*, etc. as they appear in the various Germanic dialects. The first chapter, which takes up the Gothic uses of the stem, is not particularly productive of definite results so far as indicating the earliest or fundamental meaning is concerned, because of the few occurrences of the word on record. Goth. *bōta* 'Nutzen, Vorteil', *bōtjan* 'einen fördern (in etw.)' are abstract senses and must go back to more concrete meanings, which, however, do not occur in this dialect. That the uses of the word recorded do not repre-

sent all the senses of the word in that language is suggested by our author when he finds *bōtjan* used in similar contexts with such words as *hailjan* and *lēkinōn* 'heal', and when he finds the word used also in connection with John the Baptist, the preacher of *poenitentia* (μετάνοια), i.e. *Busze*. Likewise the use of *aftwabōtjan* as a translation of Gk. ἀποκαθιστάναι suggests to him a development of meaning common in a later period, namely its use in legal language (cf. ἀποκατάστασις 'Abzahlung', ἀποκατάστασις 'Rückzahlung, Herausgabe (von Sachen)'). His surmise seems to be that even at this early time these suggested meanings may already have been present in the Gothic. The second chapter gives us a summary of the compilations of the lexicographers with regard to the meanings *Busze*, *büßen* in the West and North Germanic dialects, these being arranged in the order customary in dictionaries. The result of a comparison of the Gothic meanings with these shows the former best preserved in NE *boot* (cf. NED *boot* I, 3) e.g. *It is no boot : nist du bōtai* and *to make boot of : bōta sis taujan*. The inadequacy of the dictionaries to giving a true historical picture or chronological record of semantic development is here duly commented on. In the four remaining chapters of the work four important stages in the semantic history of *Busze* and related forms are chronologically developed. First, in its apparently earliest concrete meaning, 'repair, make good', where in the verb form it translates Lat. *sarcire*, *reparare*, and *emendare*. This use was confined principally to the trades, craftsmen, and the learned class. Secondly, its use in the language and formulas of witchcraft, and in this connection its development of meanings found in Lat. *restituere* and *curare* which later lead over to the church use of *satisfacere*, *expiare*, etc. Thirdly, its use as a legal term denoting reparation and compensation for an injury done. Here it translates such Latin expressions as *restituere*, *componere*, *emendare* and *satisfacere*. Fourthly, its use by the medieval Christian church, which has given us the ethical sense prevalent today and in which it was associated with Lat. *emendare*, *satisfacere*, *corrigere*, *convertere* in the verb form and in its noun form with *emendatio*, *correctio*, *satisfactio*, and later with *poenitentia* (μετάνοια), altho this last was in older times rendered by OHG *hriuwa*, OE *hrēow*, etc., representing the medieval Christian conception of Latin *contritio* (*compunctio*) as contrasted with the conception of *satisfactio* usually expressed by OHG *buoza*, OE *bōt*, etc. The final chapter sums up the results of the investigation, discusses briefly some special uses in the modern dialects together with the semantic influence of our word on a number of homonyms. Synonyms of Germanic

**bōtō*, **bōtjan* in all the dialects receive full consideration for purposes of comparison. The development of meaning which the author outlines for his words is clear, definite, and chronologically well established. There can be no objection to the sources of each change of meaning. He does not go into the causes of the various developments of meaning because he does not consider that within the province of his undertaking. Three tables outlining the spread and distribution of the phonetic forms of the group in the various dialects are appended as supplementary material. There is no index, but a very detailed table of contents makes use of the work possible without appreciable disadvantage.

In spite of its outstanding excellence the reviewer admits a sense of disappointment in the failure of the author to make the most of the semantic relations with the Latin which he has indicated on almost every page of his study. He has, in our opinion, overestimated the independent development of meaning of the words in the Germanic and underestimated the analogical influence of the Latin. He shows a distinct bias towards regarding the words under discussion as semantically already well developed at an early time. This leads him to surmise meanings for the Gothic for which there is no actual evidence, such as regarding *bōtjan* as a synonym of *hailjan*, or the pointing towards a legal use of the verb to translate Gk. ἀποκαθιστάναι, or again the ascribing of a Christian-ethical sense because he finds it used in connection with John the Baptist who preached *Busze* (μετάνοια). He has arranged the chapters of his study in the chronological order of the semantic development, i.e. beginning with its use by the trades in the earliest Old High German and Old English times and ending with its development of the sense *poenitentia* in the latter part of the fifteenth century. But if he claims to see in the Gothic the reflection of all these later developments, is he not committing an anachronism? His study from beginning to end shows repeatedly the use of the Germanic forms of his word to translate certain ideas in the Latin. The Old High German and Old English are particularly enlightening in this respect since in both these dialects we often have records of parallel passages in Latin. If full cognizance is taken of this, and if it is born in mind that in the early stages the Germanic dialects were semantically less highly developed than the Latin whose ideas they tried to reproduce, an entirely different conception of the semantic development of our word may be deduced. Then the Latin, thru its wealth of synonyms and its capability of expressing finer shades of meaning, becomes the enricher of the Germanic word; because the latter will be used to express, not only the funda-

mental, but also certain developed meanings of the former. To illustrate: *bōtjan* was apparently first used to express the concrete meaning 'repair'. As such it is glossed by *sarcire* and its synonyms *reficere*, *reparare*, and *emendare*. Its use to translate *sarcire* (cf. *gipuoztivdach: sartatecta*, etc.) would cause it to be used also to translate the synonyms *reficere*, *reparare*, *restituere*, *satisfacere*, *emendare*, etc. But in the semantic development of these Latin words we have almost the whole semantic history of the changes of meaning discussed in the German: in *sarcire* the developments (with *vulnus*) 'heal'; (with *damnum*, *detrimētum* cf. also *damnum restituere*) 'make good, make amends for, repair (cf. *reparare*)'; *reficere* 'remake, restore, refresh, (of the body) cure (cf. *vulnum sarcire*, *curare*, *sanare*, *salvare*)'; *satisfacere*: OE *fullbētan* (OHG *folpuozza: satisfactio*) and *emendare* (in the legal sense) 'make amends by suffering a penalty' with a large number of analogies after the Latin, e.g. OE *bōllēas: inemendabilis*, etc. (cf. 109 ff.). Even the syntactic constructions are almost without exception patterned after the Latin. The senses in the church use of the word, viz. *poenitentia*, etc. develop from the meanings of *satisfactio*, *emendatio*, etc. in their ethical sense. In the verb form *expiare*, a synonym of *emendare* itself furnishes a semantic bridge from the original meaning 'repair' to that of 'atone'.

In a supplement to chapters III and IV the author discusses at length the expression *Feuer büßen* 'kindle a flame', found in a number of the dialects. He is inclined to regard it as having originated from the use of the word in witchcraft in the sense, 'eine Feuersbrunst heraufbeschwören', but one suspects that this seems even to him rather far-fetched. Another explanation, the connection with Germanic **bautan*, OE *bēatan* (*bētan*) 'beat, etc.' (i.e. 'strike a flame') also does not satisfy him. Since in classical Latin Ovid (*Fasti* 3) and Petronius (*Satyr.* 136) use the expressions *flamam reficere*, *ignes reficere* in the sense 'rekindle a fire', and since in med. Latin also *reficere*, *meliorare*, *refovere* were used in the sense 'kindle, light' and were actually translated by OE *lēoht bētan* (*luminaria meliorare*; *lumen refovere* (*reficere*, p. 106), the reviewer is at a loss to know why these expressions too are not simply translations from the Latin. Clearly from classical Latin on the idea 'repair > refresh > revivify > rekindle (of a flame): kindle' was a strictly Latin semantic development and was simply taken over into the Germanic. This is just another characteristic illustration of semantic borrowing which has honeycombed the older Germanic dialects until it is difficult to tell what represents spontaneous semantic development and what borrow-

ing.¹ The difference between the author's and the reviewer's stand-points might be expressed as follows. The author is inclined to regard the main developments of meaning of the stem **bōtō* as almost entirely spontaneous, their various meanings corresponding to certain shades of meaning in the words they translate from the latter. The reviewer's opinion, expressed more fully elsewhere,² and strikingly corroborated by this excellent study, is that the words with the original meaning, in this case 'repair, make good', thru their contact with the semantically more highly elaborated Latin synonyms, expanded this meaning by association with these words, taking over other meanings common to the Latin but not previously used in the Germanic. This does not mean that all the developments in this study are to be traced to the Latin. The chapter on the use of **bōtō* in witchcraft formulas, for example, seems to indicate a strictly Germanic development foreign to the Latin. It is, of course, impossible that the striking semantic resemblances discussed here should have escaped our author, and so in the final chapter (273) he calls particular attention to the semantic resemblance of *emendare* and *büßen*, but he does it to quote a semantic parallel. He should know that semantic parallels have almost no validity in languages that have been so closely associated as have Latin and German.

The criticism here made in no way affects the main purpose of his study, namely to give us a thoroly documented treatise on the semantic history of Germanic **bōtō*, **bōtjan*. This purpose he has accomplished in an eminently scholarly manner and with distinct credit to himself.

SAMUEL KROESCH

Ausdrucksverstärkung; Untersuchungen zur etymologischen Verstärkung und zum Gebrauch der Steigerungsadverbia im Balto-Slavischen und in anderen indogermanischen Sprachen. Pp. viii + 156. By ERICH HOFMANN. Göttingen: Vandenhoeck und Ruprecht, 1930.

Hofmann's treatise is based mainly on the vernacular and on the works of authors who write in that idiom. For this reason he has rightly chosen to give first place in his investigations to the Balto-Slavic

¹ For a full discussion of this point compare the reviewer's articles: 'Semantic Borrowing in Old English', *Studies in Philology, A Miscellany in Honor of Frederick Klaeber*, Minneapolis, Minn. 1929, and 'Change of Meaning by Analogy', *Studies in Honor of Hermann Collitz*, Baltimore, 1930.

² See the references to note 1 above and also the reviewer's article 'The Semantic Development of OE *craeft*', *Mod. Phil.* 26. 433ff.

languages, inasmuch as they are on the whole less developed in a cultural direction than the languages of western Europe. But he does not fail to support his findings by a plenitude of expressions drawn from ancient as well as modern IE tongues and, above all, by constant reference to material found in letters and diaries written in German. Further, the possibility of Semitic influence, as reflected in translations of the Bible, particularly into the Baltic and the Slavic languages, is not disregarded. In this connection, it is most interesting to note that the use of the genitive plural in such expressions as 'king of kings', 'song of songs', which is generally considered a Hebraism, is not necessarily so in a number of IE languages. Especially in Lithuanian and Lettish, where analogous phrases occur very often, this usage must be indigenous, for the noun in the genitive plural case is always placed before the noun it qualifies, simply because that is the emphatic position. In Slavic, however, it is probably an imitation of the Biblical usage, for there the genitive plural stands after its noun.

With regard to the nature of the material, the book is divided into two distinct parts. The first four chapters deal with so-called etymological reënforcements of expression, such as the repetition of a word, the use of a noun preceded or followed by the same noun in the genitive case, the employment of a strengthening infinitive (termed Infinitive II in Lithuanian), of an adjective strengthened by an etymologically related adverb, etc. Although examples of these phenomena are by no means wanting in other languages, especially when they are used purposely in order to heighten the style, they are shown, with the exception of the genitive plural in Slavic described above, to be both old and still very frequent in Baltic and in Slavic. In the latter the repetition of a word and the placing of a word directly before the word it emphasizes are the methods of reënforcement employed, because the principal word-stress in these languages is neither strong nor definitely fixed on the root syllable. In Germanic, on the other hand, the main accent of a word, made, if necessary, stronger than usual, is sufficient to give it the desired emphasis.

In the second part, consisting of the fifth chapter alone, the adverbs of comparison are treated. They are divided into a considerable number of 'spheres of meaning' (*Bedeutungsfelder*), as, for example, 'wholly, completely', 'much', 'too much', 'enough', 'strongly, firmly', 'incomparably', 'cruelly, angrily', 'fearfully', etc. Just as NHG *sehr* has lost its original force and has become a mere 'very', and as *furchtbar*, like NE *awful*, has been taken out of its natural sphere by the wish for extra-

ordinary emphasis, so in Lithuanian does *baisei* 'dreadfully' often signify simply 'very' as in *baisei status* 'very steep', and similarly in Russian *užasno* 'fearfully' as in *užasno ljubljū* 'I am very much in love'. And likewise with the other adverbs belonging to the various spheres of meaning. They gradually become grammatical formwords with hardly a trace of their pristine vigor. Their decay, moreover, is hastened if no etymologically connected adjective exists in the language. Lithuanian *labas* 'good' has virtually died out, consequently *labai* is a very frequent adverb of comparison, but the adverb *gerai* is rarely used thus, because *geras* 'useful, good', is an ordinary word in Lithuanian. With the author's explanation (150) of the origin of these adverbs no one can find fault: '*Steigerungsadverbia entstehen in bestimmten sozialen Schichten und breiten sich dann als Modewörter aus.*'

There are many illustrative examples in the volume, of which those taken from the Balto-Slavic languages are translated. The book is supplied with a word-index and with a brief index of contents, only long enough to complete the detailed table of contents at the beginning.

FREDERIC T. WOOD

Handbuch des Sanskrit mit Texten und Glossar; ein Einführung in das sprachwissenschaftliche Studium des Altindischen. I. Teil: Grammatik. Pp. xx + 538. By ALBERT THUMB. Second edition, revised by HERMANN HIRT. Heidelberg: Carl Winter's Universitätsbuchhandlung, 1930.

This is a reprint of the first edition, unchanged except for the correction of printer's errors, to which Professor Hirt has added a copious *Nachtrag*, pages 485-519, in which he embodies the results of his researches which have recently appeared in his *Indogermanische Grammatik*, so far as they apply to Sanskrit. A most commendable feature is the placing of a conspicuous majuscule N in the margin of the page, at every passage on which he has a comment in the *Nachtrag*. It is the next best thing to incorporation of the changes in the text, an expensive process because it usually involves a complete resetting of the type.

Thumb rejected Brugmann's view (e.g., *Gdr.* 1². 1. 402) that the Skt. accusative *-am* of consonant stems was the normal antevocalic development of PIE *ṃ*, generalized; and considered the *-am* as extended to consonantal stems from the *-a-m* of *-o*-stems. It might be better to accept the latter factor as helping to cause the generalization of the antevocalic value, rather than to pronounce for one view against the other. Hirt, however, denies both these views (p. 491, to §230), and

explains Skt. *-am* in consonantal stems as from *-om* attached directly to the bare stem, in favor of which he adduces the Oscan consonantal stem accusative *tangin-om*, which cannot get its ending from *ŋ*. But the Oscan can get the ending by borrowing from *o*-stems, as Oscan consonantal stems get also the ending of the ablative singular; Latin *-em* as in *ped-em* and Greek *-α* as in *πῶδ-α* testify for *ŋ* as ending of consonant stems in PIE, since neither ending can conceivably come from *-om*. The same remarks, *mutatis mutandis*, hold for the *-am* of the first person singular of certain verbal tenses. On the other hand, I wish to commend the statement on page 492 mid., 'Die eigentliche Endung des Genitivs war wohl s . . . Daher ist der Genitiv eigentlich gleich dem Nominativ'.

It is gratifying to find that the publications of the Linguistic Society are entering into the bibliographies in standard works like the one under review. LANGUAGE is the first item added to the bibliography on page 485; and Mrs. Albright's dissertation (*Language Dissertation No. 1*) is cited on page 496, to §285.¹

ROLAND G. KENT

Studies in the Syntax of the Gathas of Zarathushtra, together with text, translation, and notes. University of Pennsylvania dissertation. Pp. 160. By MARIA WILKINS SMITH. (LANGUAGE DISSERTATIONS published by the LINGUISTIC SOCIETY OF AMERICA, No. 4.) Philadelphia: 1929.

This is a welcome piece of work, done by its author in a scholarly manner as a doctoral dissertation under the guidance of her teacher, Dr. Roland G. Kent, whose assistance is gracefully acknowledged. The author modestly speaks of herself as 'a very tyro in Avestan studies', but she has shown herself worthy of her well-known master and is rightly entitled to the position in Temple University, Philadelphia, which she now holds.

Dr. Smith possesses the laudable faculty of presenting her points succinctly in advance and then systematically discussing them in detail, so that the reader always knows what she is driving at. No better illustration of this need be given than to quote her statement at the outset (15-6) of the main conclusions she has reached, as follows:

(1) that, in the Gāthās, *mazdāh-* has not yet become part of the divine name; that *mazdāh-*, *aša-*, *vohu-* *manah-*, *xšaθra-*, *ārmaiti-*, are either aspects of Ahura, or

¹ [Cf. also the review by C. M(arstrander), *Norsk Tidsskr. f. Sprogk.* 4. 462-4 (1930). G. M. B.]

attributes of man, and nothing more; that the instrumental case of these words is always a real instrumental, most frequently denoting means;

(2) that inflected words agreeing with the word indicating Ahura are in the plural when, and only when, Ahura either acts or is approached under two or more of the five aspects, of which *mazdāh-* is one;

(3) that in the Gāthās the vocative regularly stands at the end of the pāda.

She then devotes some thirty pages to supporting these deductions by elaborate material, discussed in detail with great clarity.

As will be noticed in the above quotation, Dr. Smith speaks of *mazdāh-*, *aša-*, etc. as 'aspects of Ahura, or attributes of man', and she observes (22, §13) concerning the significance and syntax of this group of terms that 'many different opinions are recorded, the main disagreement being as to whether or not the functional and syntactic use which they undoubtedly possess in the Later Avesta may properly be ascribed to them in the Gāthās'. Towards solving this problem she makes a very detailed and instructive study of the Gāthic words thus involved, especially when used in the instrumental, applying to them what she has called the 'Aspect Theory'. The point of this theory may be briefly stated in a sentence drawn from §15 (23):

In the Gāthās, *mazdāh-*, *aša-*, *vohu-* *manah-*, *xšaθra-*, *ārmaiti-* are common nouns, naming the abstract qualities 'wisdom', 'justice', 'good purpose', 'dominion' or 'power', 'piety', respectively, which are qualities or attributes possessed alike by Ahura and by men, the former originating them, the latter receiving them, directly or indirectly, from him.'

No capital letters are therefore allowed for any term in this group except for the word *ahura-* 'Ahura' when it designates the supreme being.

All this the author has carried through with logical consistency from the linguistic standpoint, having stated at the beginning (17): 'These *Studies* are based on the Gāthic texts exclusively, irrespective of the Yasna Haptaghāiti [where the Amesha Spentas are first mentioned as a group term—interpolation by the reviewer], the Later Avesta, the Pahlavi translation, or the traditional exegesis'. Although the author gives a defense of her standpoint (17–8), the method would seem rather like attempting to interpret the Rigveda without paying any regard to the co-related Vedic literature. Still, the reviewer is one who attaches more weight to the continuity of tradition than does the author of this work; and he believes that in a number of passages in the Gāthās the personification of abstract qualities is undeniable and that the Amesha Spentas are distinctly foreshadowed in Zarathushtra's own allusions, which were well understood by the initiated listeners, espe-

cially when made more vivid by the prose expositions with which the Prophet of Ancient Iran must have accompanied his terse metrical stanzas when preaching, but which have not been preserved. In interpreting certain Gāthic verses, moreover, he is even inclined to look upon Zoroaster as a distant forerunner of the Persian Sūfis. But that matter is reserved for some other time.

Dr. Smith seeks to forestall such objections being raised against her denying to these terms any personality whatever, by her claim (24) that 'such occasional personifications . . . need not be taken literally, and do not, of necessity, indicate the presence of a definite or permanent personality', and she states that she has not overlooked, for instance, the vocative of *ārmaiti-* in Ys. 51.2, and 'the two hands of *aša-*' in Ys. 44. 14. She furthermore cites certain figurative expressions in passages from the Bible to support her interpretation in general.

To the present writer it appears, in addition, that in a number of Gāthic passages several of these abstract conceptions are associated with the objects in the material world, namely, animal life, fire, metal, earth, water, and plants, thus indicating an early inherited connection and not a chance foreshadowing. One need only consult the monograph by James Darmesteter, *Haurvatāt and Ameretāt*, 41-8 (1875), and the article by Louis H. Gray, 'The Double Nature of the Iranian Archangels', *Arch. f. Religionswiss.* 7. 345-72—both cited in the Bibliography, but apparently not considered in this particular connection. See likewise Bartholomae, *Die Gatha's des Awesta*, 131, 'Unsterblichkeit (amertatāt)', and 132, 'Wohlfahrt (harvatāt)', where distinct recognition is given to the idea of immortal drink and food. But with regard to these latter two, at any rate, Dr. Smith (51, §66) 'can see no reason for taking them in the Gāthās as anything more than blessings given to man by Ahura', even though she cites Bartholomae to the contrary. It is the old case of the doctors disagreeing when it comes to the Gāthās! Dr. Smith remains consistent throughout, however, and while the general idea implied in her 'Aspect Theory' is familiar in principle to students of the Zoroastrian Psalms, it has never before been worked out so systematically, and must therefore command the attention of future Avestan scholars.

The succeeding and larger part of the work (division VIII, 61-160) is devoted to giving the text of the Gāthās in transcription, together with a translation and notes. She has made careful use of the translations by Bartholomae and Geldner—particularly of the former as complete—and of the renderings or interpretations of single Gāthās or passages

that have been made by other scholars (a few Parsis among them), as the footnotes indicate. The translation (so far as one can translate the Gāthās) is a literal one, and, as already remarked, is based largely upon Bartholomae, references to whose *Altiranisches Wörterbuch* are appended in the footnotes to each stanza; but the rendering shows also a certain independence in regard to the authorities. It is a good thing to have such a capable English translation of the Gāthās to which one may turn, and it will be a pleasure to look forward to further Avestan studies by Dr. Smith, who has shown her colors so brightly in this first piece of work.

A. V. WILLIAMS JACKSON

Functions of the breathing movements in the mechanism of speech.

By R. H. STETSON and C. V. HUDGINS. *Archives Néerlandaise de Phonétique Expérimentale* 5. 1-30 (1930).

The expressed purpose of the investigation conducted by Professor Stetson and Mr. Hudgins and reported in the article referred to above is 'to throw light upon the grouping of syllables and to determine whether a chest pulse always occurs for each syllable'. The results arrived at are, briefly, as follows. A contraction of the abdominal muscles occurs before the initial consonant occlusion of a word like *pup* when pronounced alone. This contraction represents the anticipatory fixation of the lower part of the rib cage, the true syllable pulse being executed by the muscles of the rib cage (10). At higher speeds (e.g. 2.5 to 4 syllables per sec.) there is an abrupt rise in the air pressure in the chest; the abdominal muscles no longer make a separate movement for each syllable. 'There is reason for saying that the abdominal muscles do not make the actual syllable pulses' (12), but that by fixating the lower part of the chest for the rib cage pulses they 'produce the grouping of syllables' (13).

The authors have found it difficult to record the action of the rib cage muscles but they believe that this action is 'a sharp definite contraction of a whole group of small muscles' (17). In their analysis of their curves from the chest and abdominal walls our authors arrive at the significant conclusion that 'the pulses are not due to a rise of air pressure in the chest when the articulatory organs close the vocal canal' (20). From their study of various types of combination, e.g. '*tat tat' tat tat'*', '*pup pup' pup pup'*', and particularly from the study of the words *aragon'*, *alada'*, *aladad'*, *alahadad'* the authors conclude that there is in each instance a distinctly recorded syllable pulse for each syllable.

They present their evidence of this phenomenon in refutation of the thesis of Sievers and Navarro Thomás that *ara* and *ala* represent instances of two syllables spoken without change of breath pressure and presumably with a single chest pulse. (24).

The apparatus which has been devised for this study is interesting because of the principles involved and has afforded the authors a means for the recording of the movements of selected muscles or groups of muscles of the thorax or abdomen. There is no doubt that their 'negative pressure applicator' is superior for the purpose in hand to the girdle pneumograph of Gutzmann, although the curves obtained with it are by no means all that might be wished. The apparatus apparently fails to follow the movement through, and at higher speeds records only the 'top' of the movement, so that it is impossible to tell from the curves in each instance just when the movement begins. By the use of a specially constructed chair with rigid supports for the subject's pelvis and spinal column the authors have been able to use bosses to follow small movements at selected points on the thoracic and abdominal walls. So far as can be discerned from the article under review all of the records were made from subjects in a sitting posture. This procedure is, of course, entirely unobjectionable, but it may be noted that since posture influences the type of breathing,¹ this factor may have affected the results shown in the curves, at least for the recordings prior to the fixation of the abdominal muscles at high speed.

To the linguist the point of greatest interest in this study is the finding that the pulses which are recorded from the muscles of the abdomen and thorax are not due to a rise of air pressure in the chest when the articulatory organs close the vocal canal. This view is directly opposed to that of Roudet²: 'Sauf les cas assez rare où interviennent les muscles abaisseurs des côtes, il n'y a donc pas à parler d'effort expiratoire, puisqu'il n'y a pas de contraction musculaire et que l'expiration résulte simplement du relâchement des muscles'. It also represents the finding of a physical basis for the entity of the syllable which Scripture has denied.³ Hence the demonstration offered by Messrs. Stetson and Hudgins is of the greatest interest.

The authors observe that the maximum of their curve from the armpit, epigastrium, or navel occurs between the consonant occlusions of words like *pup* or *tat*. The same relationship maintains in the curves

¹ R. Schilling, *Monatsschr. f. Ohrenheilkunde usw.* 59. 151 (1925).

² *Élém. de phon. générale* 182.

³ *Anwendung der graphischen Methode* 44 (1927) for instance.

of air pressure from a subject with tracheotomy published by Professor Stetson in an earlier work.⁴ The authors believe that the maximum readings of their 'negative pressure applicator' curves record maxima of air pressure within the chest and from this interpretation of their applicator curves they reason that if this maximum air pressure were due to the occlusion of the consonants it should occur during the occlusion and not between the two consonants. They find that 'when simultaneous tracings are taken of the chest pressure (*i.e.* their applicator curves) and of the air outside the mouth in a high speed series of a repeated vowel, or of a syllable with a liquid, like *a-a-a...* or *la-la-la...* the maximum pressure in the chest coincides with the maximum pressure outside the mouth'. 'If the pulse were due to constriction in the vocal canal the maximum chest pressure should coincide with the *minimum* pressure outside the mouth' (20).

The curves printed in support of this particular thesis (Figs. 15, 16, 17, on p. 21) are not capable of measurement as they stand. This is in accordance with the usual practice of experimental phoneticians but it is not an acceptable procedure. It is contrary to the best practice in the physical sciences generally and it is contrary to the dictates of common sense. Curves are evidence of physical facts and they have value only in so far as they can be measured. No one would require an experimental scientist to explain to the uninitiated how his curves may be read or measured, but it is only fair to require him to show on his curves the arcs of the writing levers and the horizontal axis values to establish synchronous points. This does not require an excessively complex statement, but only the inclusion of the arcs at the beginning of each curve and the indication of one point on the base line of each curve exactly synchronous with the indicated points on the other curves.

Although the time values cannot be arrived at exactly from the curves printed in support of our authors' thesis, it is evident—providing we have no experimental error—that the maxima of the applicator curves are correctly referred to in the statements made. If the maxima of the applicator curves correspond to maxima of the air pressure in the chest, it is probable that the correspondence in phase between these curves and the pressure curves from outside the mouth can only be explained as resulting from a muscular chest pulse for each syllable. The evidence of the applicator curves now published is to be interpreted as supporting the explanation advanced by Prof. Stetson in *Motor Phonetics* (47-48): 'The stroke of the expiratory chest muscles and the beat stroke of the

⁴ *Motor Phonetics* 92, 93 (1928) for instance.

consonant occur at the same time. The consonant stroke closes the vocal canal so that the action of the chest muscles compresses the air, then the rapid back stroke of the consonant releases the air. The beat stroke and often the back stroke of the consonant occur during the beat stroke of the chest'. It will be observed that graphic evidence of the simultaneity of the beat stroke of the chest and the beat stroke of the consonant has not been produced. Our authors prefer to rest their case upon the similar phase of the maxima of the curves for air pressure outside the mouth and of the applicator curves from the walls of the thorax or abdomen. Acceptance or rejection of their results in this particular hinges then upon the interpretation of the relation of the maxima of the applicator curves to the air pressure within the chest. Your reviewer is inclined to accept the interpretation of this relationship advanced by the authors of this article, particularly as this seems to be upheld by the tracings from the subject Cr. (with tracheotomy) published in *Motor Phonetics* and also since he believes this interpretation to be capable of reconciliation with the detailed study of intrapulmonary pressure made by Gutzmann and Loewy in 1919.⁵

R-M. S. HEFFNER

Diphthong Formation A preliminary Study. By R. H. STETSON and F. L. FULLER. *Archives Néerlandaises de Phonétique Expérimentale* 5. 31-6 (1930).

The purpose of this preliminary study of diphthong formation is to show the speed at which and the manner in which adjacent vowels in consecutive syllables fuse to form diphthongs, with a consequent reduction in the number of syllables. The forms studied were:

$\bar{e}-p\check{a}'$, $\bar{e}-p\check{a}'$...becoming with increasing speed $p\check{a}'-\bar{e}$...and finally $pae = p\bar{e}$.

$\bar{o}-p\check{a}'$, $\bar{o}-p\check{a}'$...becoming $p\check{a}'-\bar{o}$...and finally pao .

$p\check{a}-\bar{e}p'$, $p\check{a}-\bar{e}p'$...becoming $\check{a}-\bar{e}p'$...and finally $aep = \bar{e}p$.

$p\check{a}-\bar{o}p'$, $p\check{a}-\bar{o}p'$...becoming $\check{a}-\bar{o}p'$...and finally $aop = auwp$.

It was determined that the rate at which the diphthong is formed as the speed increases is very close to the rate at which the abdominal muscles fixate, and it is suggested that the critical rate at which the diphthong forms may be the maximum rate at which an iambic grouping can be made (i.e. 2.5 to 3 iambs per sec.).

⁵ *Pflügers Archiv*. 180. 111-37.

The articulatory vowel movement of the eliminated syllable was found to shift in the direction of the accent (backward in the form $\bar{e}-p\check{a}'$, forward in the form $p\check{a}-\bar{e}p'$), although the chest pulse of the eliminated syllable fuses in each case with the following chest pulse of the accented syllable. The diphthong is formed because the articulatory movement of the vowel persists after the syllable in which the vowel figured is eliminated by the increasing speed, just as the consonant of the unaccented syllable persists after the syllable is eliminated.

These results are interesting as they reveal the phenomena of rhythmical movements under conditions of repetition with increasing speed. The possible application of these findings to the solution of linguistic problems is not immediately clear to your reviewer.

R-M. S. HEFFNER

NOTES AND PERSONALIA

PROFESSOR S. L. MILLARD ROSENBERG, of the University of California at Los Angeles, reports that under his appointment as delegate he represented the LINGUISTIC SOCIETY OF AMERICA at the Semicentennial Celebration of the University of Southern California, early in June, 1930. The chief event of the celebration was the Convocation held on the morning of June 7, attended by delegates from 25 foreign governments, 38 foreign institutions of learning, 162 institutions of learning in the United States, and 45 learned societies and associations. Two other delegates were members of the LINGUISTIC SOCIETY: Frederick M. Carey, of the University of California at Los Angeles, representing the American Philological Association, and George W. H. Shield, Supervisor of Modern Languages in the Los Angeles and Southern California Schools, representing the National Federation of Modern Language Teachers.

VEDIC VARIANTS I: THE VERB, by the late Maurice Bloomfield of The Johns Hopkins University and Franklin Edgerton of Yale University, is now in the press, and will be ready for distribution in a few weeks. The regular price of the volume is Five Dollars; but as a Special Publication of the LINGUISTIC SOCIETY, it can be obtained by members and subscribing libraries of the Society at a special rate, because of the subvention granted by the Society: \$3.00, cash with order, before Feb. 1, 1931; \$3.50, order before Feb. 1, 1931, and payment on delivery; \$4.00, order after Feb. 1, 1931. Inquiries should be sent to the Secretary of the Linguistic Society, Prof. R. G. Kent, Univ. of Pennsylvania, Philadelphia, who is acting as Business Manager of the *Vedic Variants* Series.

THE INTERNATIONAL JOURNAL OF AMERICAN LINGUISTICS, edited by Professor Franz Boas of Columbia University, has become affiliated with the LINGUISTIC SOCIETY OF AMERICA and will appear as a *Special Publication* of the Society. The regular price of the Journal is Five Dollars per volume; but new subscribers who are members of the LINGUISTIC SOCIETY will be entitled to Volume VI, now with the printer,

at the special rate of Four Dollars. All inquiries should be addressed to Professor Boas.

THE CURME VOLUME OF LINGUISTIC STUDIES, in honor of George Oliver Curme of Northwestern University on the occasion of his seventieth birthday, will appear simultaneously with this issue of *LANGUAGE* as *Language Monograph No. 7*. The special editors are James Taft Hatfield and Werner Leopold of Northwestern University, and A. J. Friedrich Zieglschmid of the State University of Iowa.

VERBS OF MOTION IN THEIR SEMANTIC DIVERGENCE, by Klara H. Collitz, Ph.D., has been accepted for the series of *Language Monographs*, in which it will be No. 8, appearing in the spring of 1931.

WILBUR E. GILMAN has gone to the University of Missouri as Associate Professor of German.

MISS SELMA S. KOENIG has returned to her Professorship of French and German at Carthage College, Illinois, after a year of graduate study at the University of Wisconsin.

WERNER LEOPOLD has gone to Northwestern University as Assistant Professor of German.

REINHOLD EUGENE SALESKI has returned to his regular position as Professor of German at Bethany College, W. Va., after a year at the University of Pennsylvania as Harrison Research Fellow.

MISS PAULINE TURNBULL has returned to her regular position as Assistant Professor of Latin at Westhampton College, University of Richmond, after a year of graduate study at the University of Pennsylvania, where she received the degree of A.M.

FREDERIC T. WOOD has gone to the University of Virginia as Assistant Professor of German.

THE FOLLOWING NEW MEMBERS have been received into the Linguistic Society of America, subsequent to the last published list, and up to September 24:

- Mr. George Beecher, Ballard School, R.F.D. 1, Louisville, Ky. (English and Latin)
- Mr. A. Collins Healy, 521 W. 124th St., New York City. (Gaelic)
- Rev. Henry J. Heck, Pontifical College Josephinum, Columbus, Ohio. (Latin and English)
- Prof. Joh. Rahder, Univ. of Utrecht, Utrecht, Netherlands. (Sanskrit and Comparative Philology)
- Prof. Carl Selmer, Hunter College, New York City. (German)
- Mr. Henry F. Standerwick, 400 Convent Ave., New York City. (Classical Langs., College of the City of New York)
- Dr. Winifred Sturdevant, Barnard College, New York City. (French)

BOOKS RECEIVED

Under this heading will be acknowledged such works as seem to bear on the advancement of the scientific study of language.

The publicity thus given is regarded as a full return for the presentation of the work. Under no circumstances is it possible to comply with the requests being made by certain publishers for the return of books not reviewed quickly.

Reviews will be published as circumstances permit. Copies of them will be sent to the publishers of the works reviewed.

For further bibliographic information consult the annual list of Exchanges.

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